

# **A COMPLIANT MEDICAL EXAMINATION FOR DOWNEY FIREFIGHTERS**

## **EXECUTIVE DEVELOPMENT**

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## **ABSTRACT**

The Downey Fire Department's medical examination program did not comply with 1997 NFPA standards (1500, 1582) or with OSHA Respiratory Protection: Final Rule (1998). The purpose of the research paper was to determine deficiencies in the Downey program and develop a medical-examination program that complied with the known standards, recommendations, and requirements.

The methodology included a literature review of relative publications, a review of NFPA, OSHA, and local standards. Interviews with subject matter experts to clarify the literature were performed. The existing D.F.D. medical examination program was studied extensively. Action research techniques were used to produce a new medical examination program. The research questions were:

1. What medical examination requirements exist relative to the fire service on a national level?
2. Do any other standards, recommendations, or requirements exist outside of the national standards that impact the Downey medical-examination procedures? (If so, what are the standards, recommendations, and requirements?)
3. What are the differences between the Downey medical-examination procedures and the recognized standards, recommendations, and requirements?
4. Are there any fire departments or organizations who meet all of the requirements of the standards, recommendations, or requirements?

5. Is it possible to provide a new medical-examination program that addresses all of the new parameters of the standards, requirements, and recommendations?
6. What are the requirements of the new Downey Fire Department medical-examination program?

The procedures involved evaluating all found standards and regulations and comparing those to the Downey program.

The research revealed the Downey medical-examination program was non-compliant, particularly with respect to frequency. Significant justification was found for annual medical examinations of all firefighters. Jurisdictions have discretion to set medical standards in their organizations relative to essential functions performed by their firefighters. The Downey program required better documentation.

It was recommended that a companion physical-ability examination be formulated to ensure the total evaluation of the Downey Firefighters.

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## INTRODUCTION

The Downey Fire Department (DFD) Medical Examination Program does not meet the requirements or recommendations of the 1998 OSHA Respiratory Standard, the IAFF/IAFC Wellness Committee, or NPFA Standards 1500 and 1582. The purpose of this paper is to investigate and apply the above-listed new documents and other relevant findings to the existing Downey program and develop a new medical examination program that complies with the statutes.

This research project used the action research methodology to answer the following questions:

1. What medical examination requirements exist relative to the fire service on a national level?
2. Do any other standards, recommendations, or requirements exist outside of the national standards that impact the Downey medical examination procedures? (If so, what are they?)
3. What are the differences between the Downey medical examination and the recognized standards, recommendations, and requirements?
4. Are there any fire departments or organizations who meet all of the requirements of the standards, requirements, and recommendations?
5. Is it possible to develop a new medical examination program that addresses all of the new parameters of the new standards, recommendations, and requirements?
6. What are the requirements of the new Downey Fire Department medical examination program?

## **BACKGROUND AND SIGNIFICANCE**

For twenty years the NFPA annual report on firefighter deaths has been dominated by heart attacks (A.E. Washburn, 1998, p. 53). While most of these deaths have occurred during actual firefighting activities, a number have happened during training activities or after the actual emergency incidents.

Recognizing the problem, several organizations have responded recently to this crisis by publishing requirements and recommendations in an effort to reduce or eliminate this long-term trend.

The Occupational Safety and Health Administration (OSHA), in their new and soon to be implemented respiratory standard (29 CFR 1910.34, 1998) has taken steps to address fire deaths in a number of ways. Most noticeably OSHA has now ordered fire departments to form standing rescue teams on all incidents deemed immediately dangerous to life and health (IDLH) before an entry is made into such an environment. While standing rescue teams will certainly provide better scene safety, these teams will do little to enhance or ensure the physical performance of the individual firefighter.

Since nearly all fire deaths occur from a heart attack, the cessation of the heart to beat, it seems the issue of personal performance or ability would be addressed. It is in this area that OSHA has now entered.

OSHA is now requiring annual medical evaluations (29 CFR 1910.34) be performed on all personnel who wear respirators for their work. This new regulation is the first time the Downey Fire Department has been ordered to annually appraise their personnel. The last was when the California Department of Motor Vehicles (DMV) required all firefighters operating fire-department apparatus to, at minimum, file

self-done medical evaluations. Downey Firefighters holding a commercial driver's license, a higher level of licensure, must be examined by a physician every two years and file such paperwork with the DMV.

The National Fire Protection Association (NFPA) has a standard, 1582, that specifically relates to medical requirements for firefighters. The NFPA demands, if the individual fire department adopts 1582, that the fire-department physician annually certify that each firefighter meets the medical requirements of the standard (1997, p. 5). The medical requirements delineated in the standard are designed to match the demands an individual involved in emergency operations or hands-on training would need to hold to have a positive outcome when involved in such activities.

The International Association of Firefighters (IAFF) and the International Association of Fire Chiefs (IAFC) have published jointly-written medical examination procedures in their wellness/fitness initiative (1997). The document, while not a standard, is intended to answer the fit-for-duty needs of the fire service (Dezelan, 1997, p. 56). The medical procedures offered are general guidelines with most decisions left to the fire department physician.

Presently, and for the last fifteen years, the Downey Fire Department has had its firefighters evaluated with a comprehensive medical evaluation by a physician. The frequency of these examinations has been based solely on age (Appendix B). This same examination is given to all firefighters irrespective of age. For those firefighters who require more frequent medical examinations due to DMV restrictions, a streamlined yet DMV compliant examination is performed at an approved medical facility.

The present regulatory demands (DMV, NFPA) and the future (soon to be implemented OSHA Respiratory Standard) demands on the Downey Fire Department medical examination program force the program to be reevaluated. At a minimum the OSHA demands will force each firefighter to annually evaluate themselves utilizing a standard form with a fire department physician ensuring their abilities based on the responses he/she finds on the form. Some of the responses, if responded to the positive, will force the physician to make an examination on the patients (OSHA, 1998).

The cost of the OSHA mandated physical evaluation is reportedly not significant (OSHA, 1998). However, only after implementation will fire service agencies be in a position to gauge the price of the regulations.

Certainly the Downey Fire Department has a moral and ethical duty to provide a safe environment for its employees. It also has a legal duty to comply with standards issued by its own form of government as well as other agencies. To provide less than the standards dictate in regard to medical evaluations and examinations would be both negligent and malfeasant. Therefore, the focus of this research is linked to the legal issues covered in the Executive Development portion of the executive fire-officer program. Absent compliance with known statutes and regulations, fire departments and their administrators are potential defendants in a court of law (H. Markham, Executive Development Lecture, June 1998).

Therefore, this research is intended to determine the status of the current medical examination/evaluation program of the Downey Fire Department and ensure it complies with all implemented and adopted regulations to satisfy the duty of responsible

fire administrators, which is to maximize efficiency and minimize liability for their organizations.

## **LITERATURE REVIEW**

The purpose of this literature section is to analyze and summarize the critical findings of others who have published documents related to firefighter medical evaluation and examinations.

To begin with, few articles have been published specifically focusing on firefighter medical examinations. The trend of most of the fire service publications is on physical fitness and how a new program can effect the health of an organization. The relative absence of published documents may also be explained by the popular focus of nearly all of the fire service publications on the 2-in/2-out portion of the OSHA Respiratory Standard. This small section of the new standard has become the most important aspect of this standard for fire departments as it immediately demands changes to foreground safety operations. Once solutions have been found for the 2-in/2-out portion of the standard, the focus may shift to the other parts of the document

Several interviews were conducted to add to the breadth of published research. Additionally, public-health studies were evaluated to ensure adequate focus was maintained on the subject at hand, prophylactic medical examination of firefighters.

In an article written for *Fire Chief* magazine, Benjamin G. Newman, M.D. and Linda C. Malone, Ph.D. call attention to the most consistent threat to firefighter health, cardiovascular disease and its sequelae [effects or consequences] (Newman, Malone, 1986, p. 36). The NFPA, in its annual "US Firefighter Death Report" reports firefighter

deaths due to heart attack vary yearly between 30 - 50% (Washburn, LeBlanc, Fahy, 1998, p. 54).

The work of Newman and Malone led them to the conclusion that we should try to find those firefighters who would be susceptible to heart disease and try to alter their lifestyles, diets, and other parameters to help prevent the progressions of heart disease (1986). They went on to substantiate the cost of their program, \$15,900 per year for 106 members, by calculating the financial impact of just one firefighter death in the performance of duty. In Seminole County, Florida the maximum survivorship benefit is \$100,000. By relieving just one firefighter of suppression duty before such a tragedy, a great potential for savings in benefits would be realized.

Using NFPA statistics Newman and Malone predict .07% of firefighters, on a national basis, will experience heart attacks. Once an attack occurs they estimate the cost of disability, medical expenses, and rehabilitation to approach \$300,000.

The National Fire Protection Association (NFPA) in its study on firefighter deaths in 1997 found 38 firefighters had lost their lives due to heart attacks related to fire-department activity (Washburn, LeBlanc, Fahy, 1998, p. 54).

### **National Legislation**

A review of the national legislation yielded several documents that reinforced the local requirement for physicals for firefighters. In his applied research project, A. Marsh found the Civil Rights Act of 1991, Americans with Disabilities Act (ADA) of 1991, and the Discrimination in Employment Act (ADEA) Amendments of 1996 all demand a medical standard for firefighters if fire departments are to comply with the legislation (1996).

Once a cogent medical standard is set, the ADA requires that same standard be met by all operational members of a fire department...“Without the establishment of a single physical standard under the guidelines of ADA, it would be illegal to refuse potential employment as an emergency responder or to any applicant based on a disability (Godwin, 1996, p. 22).

In his article for the February 1997 *Voice*, Attorney Mark Lies, III found:

Many employers are wary of instituting or enforcing physical standards because of fear of discrimination litigation under the Americans with Disabilities Act (ADA) or other state handicap statutes. This fear should be dispelled because the ADA and its regulations clearly recognize the importance involved in fire and emergency response, thereby allowing employers considerable latitude in setting physical standards so that firefighters can perform their *essential functions* [italics added] which at times may require extreme physical exertion in fighting a fire or performing a rescue (1997, p. 10).

Marsh added the ADA requires that medical/physical standards be job-related and consistent on the business necessity, which means developing job-related medical/physical standards (1996).

### **Federal Requirements**

Federal regulations in the form of OSHA and National Institute for Occupational Health and Safety (NIOSH) standards relate to physicals for firefighters as a method of ensuring their ability to perform their job-related tasks.

OSHA, in its 1998 Respiratory Protection Standard CFR 1910.34 mandates an annual medical evaluation be given to each member who may be required to wear a

respirator. This requirement follows the past standard from 1971, in which it was recommended that employers ensure the physical ability of their employees through regular reviews of the medical status of respirator users and suggested that a once-yearly evaluation would be appropriate (1998).

The International Association of Fire Chiefs (IAFC) in its document *A Comprehensive Analysis of the OSHA Respiratory Protection Standard 29 CFR 1910.34* found:

There are two principal ways of meeting the requirements...either use the questionnaire found in Appendix C of the OSHA Respiratory Standard (1998)...or have users take a physical examination that includes an evaluation of the person to use a respirator. The questionnaire must be administered by a state-licensed health care professional, and a physical examination must be given under the discretion of a state-licensed physician. The questionnaire in Appendix C seems to be the easier route to go if the person is not going to go through a physical examination...(Seymour, 1998, p. 12).

### **National Standards**

The National Fire Protection Association (NFPA) has issued several standards that are relative to physicals for firefighters. NFPA standard 1001, 1500, and 1582 all address some aspect of firefighter physicals. It is important to note that..."There is no current NFPA standard or recommended practice on physical fitness, physical performance, or physical assessment" (Marinucci, 1996, p. 6). However, OSHA, in its *General Duty Clause*, may, and has, utilized so-called national consensus standards to issue citations to employers who do not follow those standards (Lies, 1997, p. 1).

The 1992 edition of NFPA 1001 *Standard For Firefighter Professional Qualification* (Section 2-1.3) demands entrants in fire-training programs meet the requirements of NFPA 1582 (*Standard On Medical Requirements For Firefighters*), although in the appendix section of NFPA 1001 (sec. A-2-1.3), the standard requirements change to..."should meet within a reasonable period of time prior to entering into training or testing for Firefighter to ensure his or her ability to safely perform the required tasks."

The 1997 edition of NFPA 1500 (*Standard On Fire Department Occupational Safety And Health Program*) addresses the medical and physical abilities of firefighters by directing departments to:

...medically evaluate and certify candidates and members by a fire department physician (chap. 8, sec. 8-1).

...take into account the risks and the functions associated with the individual's duties (chap. 8, sec. 8-1.1).

...ensure candidates and members meet the medical requirements of NFPA 1582 *Standard On Medical Requirements For Firefighters* prior to being certified for duty by the fire-department physician (chap. 8, sec. 8-1.2).

...medically evaluate all members who engage in fire suppression as specified in NFPA 1582 *Standard On Medical Requirements For Firefighters* on at least an annual basis (chap. 8, sec. 8-1.3).

...medically certify members for the use of respiratory-protection equipment annually (chap. 8, sec. 8-2.2).

In an interview with one of the framers of NFPA 1500, Robert Neamy, Assistant Fire Chief with the Los Angeles Fire Department, he stated...“The intent of the 1500 [NFPA] committee was to require an annual medical examination of all members in fire suppression” (R. Neamy, Personal Communication, October, 1998).

The 1997 edition of NFPA 1582, *Standards On Medical Requirements For Firefighters*, requires all members of a fire department to comply with the standard, if adopted, regardless of position, whether candidate or current firefighter (NFPA 1582, 1997, p. 1). The origin and development section of NFPA 1582 (1997) goes further by claiming legal opinion and federal-law requirements set for a position must apply to anyone in that position.

Several of the NFPA 1582 (1997) requirements have been covered in the review of NFPA 1500 [above]. However, NFPA 1582 (1997), in Section 2-4.1, directs fire-department physicians to annually certify all current firefighters as meeting the requirements of Chapter 3 of NFPA 1582. Section 2-4.1.1 of NFPA 1582 (1997) requires a qualified person, as authorized by the fire-department physician, perform annual medical examinations consisting of medical history, occupational history, height, weight, and blood pressure.

NFPA 1582 (1997) Sections 2-4.1.3 and 2-4.1.4 set the frequency and medical procedures that must be included in medical examinations (Appendix C).

### **National Membership Organizations**

The International Association of Fire fighters (IAFF) has recognized the value of union-supported wellness programs, nutrition programs, smoking and tobacco-use cessation programs, and occupational medical programs (Duffy, 1996, p. 8). Duffy, in

the same article, itself a justification for IAFF opposition to the “combat challenge,” [a physical test for firefighters] acknowledges that departments have the right to implement, in almost all cases, physical testing programs (Duffy, 1996, p. 8). However, the IAFF policy on physical-fitness programs as ratified by delegates at the International Convention in Vancouver:

...such programs may be mandatory; however, agreement to initiate it must be mutual between the administration and its members represented by the local union. Any program of physical fitness must be, at a minimum, positive and not punitive in design; allow for age and position in department; allow for on-duty-time participation utilizing facilities provided or arranged by the department; allow for rehabilitation and remedial support for those in need; and be reasonable and equitable for all participants (Duffy, 1996, p. 1).

Duffy goes on to report the IAFF’s concern with fitness testing is that it is medically and legally validated and is not discriminatory (1996, p. 1).

While acknowledging fire departments have historically hired the strongest medically and physically qualified individuals, Duffy opines the reason that this policy is not congruent with the Americans with Disabilities Act (ADA). Duffy reasons that this past practice would now be cause for discrimination and that if physical tests are used as a condition of employment, they must also be used for new hires, once again due to ADA requirements (1996, p. 8-9). In summary, Duffy writes that...“Timed, task-based tests do not assure the physical fitness of members” (1996, p. 16). For this research project, the opinion on a single standard is relevant. However, Duffy’s comment on the

inability of task-based tests to predict the medical condition of firefighters is accurate from a medical point of view.

In December of 1996 the leadership of the IAFF and the International Association of Fire Chiefs (IAFC) met to begin work on the Joint Labor Management Wellness/Fitness Initiative (Dezelan, 1997, p. 56). From this conference and several follow-up meetings, a document was formulated and published. The document contains sections on medical evaluation, fitness, behavioral health, and rehabilitation (IAFF/IAFC, 1997).

The section of the IAFF/IAFC wellness document devoted to medical evaluation is particularly important for this research. Components of the recommended medical examination are included in this section and the time interval in which those examinations are to be completed (1997, p. 9). The exam is designed to help identify health problems affecting the individual, his/her department, and the professional fire service (1997, p. 9). The recommended areas of examination and testing are in Table 1.

The IAFF/IAFC project is important for a number of reasons. It was a consensus project between labor and management. It carried little weight in the standards process due to the formation of the document, and no rule-making government agencies were involved in the project. The recommended medical examination was comprehensive and established a method for data collection to track results (1997, p. 10). Finally, the IAFF/IAFC document does not interfere with any fitness standard departments might have in place. Indeed, it will only enhance such standards (Paulison, 1997, p. 6).

## **Independent Studies**

In an independent analysis of line-of-duty fire deaths in 1997, the National Fire Protection Association (NFPA) found 42.3% (38 firefighters) of the deaths to be caused by heart attack induced by the stress of the job (Washburn, LeBlanc, Fahy, 1998). These deaths occurred during response to incidents, at incidents, returning from incidents, and after incidents. In five cases firefighters died from training activities that led to a life-ending heart attack. These findings draw attention to the linkage between firefighter health and fitness and the rigors of the job.

It is important to note that Duffy repurposes this correlation...“Many of the firefighter line-of-duty deaths attributed to heart attacks are, in fact, the results of other factors at the fire scene” (Duffy, 1996, p. 16). Duffy goes on to write that it is...“Baffling that anyone could fail to recognize that so-called heart-attack victims killed in the line of duty are found to have high levels of carbon monoxide and other toxins in their blood, or they pushed their bodies to the breaking point to save others’ lives” (Duffy, 1996, p. 16).

In the earlier-cited 1997 firefighter fatality report, Washburn, LeBlanc, and Fahy found...“engineered improvements in firefighter safety have their limits. Protecting a firefighter from his or her own medical state, whether behavioral or hereditary, is a difficult task” (1998). While recognizing firefighting as a job not only filled with danger and stress but also with intensive labor demands, some factors are fairly obvious: We must keep our firefighters physically fit; we must monitor their health; we must recognize health issues that might keep them from emergency-scene functions (Washburn, et. al., 1998).

Washburn, LeBlanc, and Fahy write...the information clearly shows the vast number of firefighters who died of heart attacks and strokes had serious pre-existing medical conditions that more often than not were known, at least, to the victim (1998). They finish succinctly by stating we must acknowledge firefighters' conditions and act to get those in danger off the fireground.

In a companion 1997 NFPA study on firefighter injuries, Karter and LeBlanc write..."certain actions can be taken at the local level to reduce injury rates....regular medical examination programs can be implemented, as can evaluation and conditioning programs" (1998).

Finally, in another National Fire Protection Association (NFPA) study, *Fatalities Resulting From Heart Attacks*, 1984 – 1993, the NFPA found 52.3% of the firefighters who died in the line of duty from heart attacks during the study years had prior heart-related conditions such as previous heart attacks or coronary-bypass surgery. Another 30% had severe arteriosclerotic heart disease. Taken together over 80% of the heart attack line-of-duty death victims had known or detectable heart problems and were still active in the fire service (1994, p. 32). Only 1.5% of those heart-attack victims had no prior medical condition reported (1994, p. 32). The study concludes by recommending more detailed medical evaluations and further study in the areas of physical fitness and dietary requirements for firefighters must be taken (1994, p. 40). Finally, the NFPA found attention must be focused on the significant problem of fire-service personnel who have heart problems yet are allowed to remain active in firefighting (1994, p. 40).

## **Interviews**

Five interviews were conducted for this research project. Nearly all of them were due to the absence of published material on this research topic or were intended to clarify a point in the literature.

Dr. Richard Guess is the supervising physician for the Downey Community Hospital Emergency Room and supervises the *Lifestyles program* at the hospital. *Lifestyles* conducts comprehensive physical examinations on members of the Downey Fire Department. The 1998 Occupational Safety and Health Association (OSHA) Respiratory Protection Standard (29 CFR 1910.34), NFPA 1500 and 1582 (1997), and the IAFF/IAFC all recommend or require a fire department appoint a medical professional to observe the medical evaluations and examinations of fire-department members. The Downey Fire Department has yet to make such an appointment (approximately six months remain on the OSHA implementation schedule). However, Dr. Guess appears to be the likely choice due to his experience in his present roles and the geographic position of the Downey Community Hospital.

In the interview, Dr. Guess made several comments on the current physicals being performed on Downey Fire Department members. The comments covered four areas that relate to this research. First, the physicals offered by *Lifestyles* were designed for business executives without regard for age or present work conditions. Second, a number of the medical tests performed were not necessary for everyone, for instance, the stroke screening on firefighters under the age of 30. Third, he felt a modified physical, with fewer tests and activities, could be developed and used to evaluate Downey Firefighters just as well as the current comprehensive medical

examination. Finally, and perhaps most importantly, after he had reviewed the OSHA Respiratory Standard medical questionnaire (Appendix C, 1998), he expressed his discomfort with approving members of the Department for firefighting duty yearly, solely basing that decision on a written medical survey without a medical examination (Guess, Personal Communication, October/November 1998).

Attorney Mark Lies, III, a leading labor attorney from Chicago, was contacted to clarify his points in his previously-mentioned article. He reiterated his conclusion that the OSHA *General Duty Clause* was relevant to fire-department operations and NFPA standards. He added, "When OSHA began their work, they did not have the time or facilities to write standards" (Lies, Personal Communication, November 25, 1998). As an example of this type of adoption, the blood-borne pathogen standard that was initially used by OSHA originated with the Center for Disease Control (CDC) and existed as an adopted OSHA standard until OSHA wrote their own (Lies, 1998). The interview focus shifted to the OSHA Respiratory Protection Standard (29 CFR 1910.34, 1998). When questioned specifically about the annual medical evaluation versus medical examination choice in the standard, he nearly reiterated Dr. Guess's comment that it may be difficult to find physicians who will certify firefighters they have not examined who may choose to falsify their questionnaires to pass probation or to stay for another year before retiring. He stated that he would expect increased scrutiny of those firefighters over 40. Finally, he added he didn't believe fire departments would be successful in obtaining certification without examination due to doctor's concerns with liability issues. He closed by offering his theory on why OSHA might have offered the

certification-by-evaluation, that being to avoid the unfunded mandate charge by fire departments for mandated medical examinations (Lies, 1998).

Because of the Phoenix Fire Department (PFD) involvement in the IAFF/IAFC joint wellness project (Dezelan, 1997, p. 56), an interview was arranged to review the progress and experiences of the PFD in implementing the medical examinations recommended by the project. The objective of the interview was to seek out information that may be published in the future in a fire-service journal.

In an interview with Battalion Chief Williams, he made several comments on the Phoenix Fire Department's medical-evaluation program relative to this research paper. First, the members of the PFD are all tested by the Department's own physician at a fire-department facility. Second, each member of the Department is tested every fifth quarter [every 15 months] (Williams, Personal Communication, October 9, 1998). The outline of the Phoenix Fire Department medical examination can be found in Table 1.

Paul E. Davis, President of A.R.A./Human Factors, a research and consulting firm, was contacted through E-mail and asked for comment on the process and product of the IAFF/IAFC joint wellness document. Mr. Davis was recognized as a *special expert* (italics added) in the IAFF/IAFC document (1997). Mr. Davis writes monthly for *Fire Chief* magazine. However, he has not written on the subject matter of this research project. His experience with the combat challenge (project director) and his Ph. D. in exercise physiology give his short focused comments on the IAFF/IAFC project and firefighter physical examinations credence.

Regarding this author's request for information on firefighter physicals and this IAFF/IAFC project, Mr. Davis's comments were succinct..."There's not a lot of science

on the subject of physical exams for firefighters. They're pretty much like other people who get an examination." Regarding this author's request for help in finding research material, Mr. Davis wrote..."I'm sure that if you check Medline or Medlars, an on-line system of the National Library of Medicine, you'll find tons of stuff." An interesting comment from someone so involved in fire-service fitness issues, no direction was given to look into fire-service sources. Finally, Mr. Davis comments on the IAFF/IAFC project he worked on..."The IAFF/IAFC joint initiative has a recommended physical examination that will cost your department about \$800/person. But that was based on nothing more than the consensus of opinion of the people on the task force" (P.O. Davis, Personal Communication, October 30, 1998). Mr. Davis's final statement leaves the reader with the impression that there was little science involved in the IAFF/IAFC document.

Finally, because the *California Commercial Driver Handbook* (1998) pertains to Downey Fire Department operations, all firefighters must have an appropriate California driver's license; and due to the lack of published comments on the California commercial driver's license process, phone contact was made with Jerry Jordan in the Sacramento office of the California Department of Motor Vehicles [Commercial Driver's License Unit]. The focus of conversation was to clarify certain aspects of the medical-examination process.

Firefighters have a choice regarding how they maintain their medical clearance (DL-51) to operate fire-department vehicles (Jordan, Personal Communication, November, 1998). If they choose, they may hold a commercial driver's license (CDL). This requires them to be examined by a doctor every two years and submit the required

forms. The alternative to a CDL is a non-commercial CDL with a firefighter restriction. This second choice demands firefighters submit to a health questionnaire (Form 046) filled out by themselves with only contact information regarding their doctor. The DMV is then able to follow up on the health questionnaire if a positive response is found (CDH, 1998, p. 5).

In the case of those firefighters who choose to follow the health questionnaire route, they are eligible to operate fire-department ambulances only through an exemption (California Vehicle Code, 1998, sec. 12527(f)). Normally, persons who have an ambulance driver certificate, required to transport patients, must submit a copy of the medical report, an actual medical examination (Form 051) to DMV every two years (CDH, 1998). This final regulation impacts the Downey Fire Department in that everyone is required to be able to drive the fire-department ambulances. Therefore, all firefighters must have a DMV-compliant medical examination performed every two years or, or for those with the firefighter exemption, file the health questionnaire every two years. Jerry Jordan did not know how the exemption for firefighters occurred in 1989 (Personal Communication, November, 1998). Clearly, only two rationales exist. The DMV, in 1989, felt firefighters required higher health standards than the DMV medical exam and that the fire departments ensured that or felt fire departments examined their firefighters medically at least every two years. Medical procedures from DMV Form 051 are found in Table 1 as are the parameters of DMV 046 (Health Questionnaire). A copy of both forms is attached to the Downey Fire Department medical questionnaire (Appendix D).

## **Other Information Sources**

The United States Public Health Services Office of Disease Prevention and Health Prevention started a new program in 1994 titled Put Prevention Into Place (PPIP). As part of the program a book, the *Clinician's Handbook of Preventative Services*, was published in 1998. The handbook discusses screening tests for early detection of disease, immunizations, and prophylactics to prevent disease (PPIP, 1996, p. IX). Appendix A of the Clinician's Handbook specifically provides supplementary information including timelines and risk-factor tables (PPIP, 1998, p. 468-469). Of relevance for this research are the recommendations on medical screening frequencies. All recommendations, with exception of the yearly occult blood test for those over fifty, are well below the previously-mentioned guidelines, recommendations, and requirements of the NFPA, IAFF/IAFC, OSHA, et cetera.

## **Summary of the Literature**

The objective of this research is to determine the current requirements and recommendations for medical examinations for Downey firefighters and then to compare those findings with the Downey Fire Department medical-examination program. If shortcomings are found with the Downey program, then recommendations to correct those deficits are appropriate.

The literature reviewed first gave direction and motivation to this research. Newman and Malone's work proved medical examinations can provide positive results, be efficient, and motivate those involved in the process to continue to strive for better health.

The national legislation clarified the need for medical examinations for everyone, candidates and career firefighters. Attorney Lies assured the importance of this research when he dispelled fears of ADA backlash due to the importance of the “essential functions” a firefighter is required to complete.

The OSHA regulations regarding the new respiratory standard as well as the *General Duty Clause* serve to ground the research in the search for solid regulation. Without question something must be done to address the requirements of this respiratory standard and to deal with the demands of the *General Duty Clause*.

The NFPA standards 1001, 1500, and 1582 all give direction to the research on the frequency of examination, annually; the scope of the examination, a total system check; and by whom it should be done, at the direction of a fire-department physician.

The national membership organizations (IAFF/IAFC) have jointly produced one method of evaluating firefighters on an annual basis that goes beyond the requirements of all of the reported standards. The work of the IAFF/IAFC is important because it recognizes firefighting as unique work and, therefore, worthy of extra concern on the part of examinations. The PPIP recommendations reinforce this finding.

The NFPA firefighter fatality and injury studies gave credence to this research. Although somewhat contested by Duffy, the statistics bear little moral room for non-compliance. When over eighty percent of the line-of-duty heart-attack deaths are not without previous cardiac symptoms, something must be done.

The interviews performed served to clarify the intent of the literature and how that literature may be interpreted by other shareholders. In the case of Dr. Guess, his comments foreshadow future challenges that may go beyond this research.

## **PROCEDURES**

The research procedure employed in preparing this project began at the Learning Resource Center at the National Emergency Training Center in June of 1998. A literature review was performed at that time to determine what influential standards may apply to this research. Equally important was the search for any similar works from executive fire-officer program participants that may serve as a platform to begin this research.

Additional literature was obtained through requests from the NFPA on firefighter fatalities to provide direction and background, from the U.S. Department of Health and Human Services (USDHHS) to provide broad support for testing requirements, from OSHA to provide verifiable requirements, and from the California Department of Motor Vehicles.

The literature review provided the direction and information that led to the compartmentalization of the medical examination itself. To develop a new medical examination, the current examination and all recommendations and requirements needed to be compared and contrasted.

Interviews were conducted with Ronald S. Irwin, Fire Chief of the Downey Fire Department, to gain historical perspective on the current Downey Fire Department medical examination, on October 8, 1998; Decker Williams, Assistant Fire Chief of the Phoenix Fire Department and in charge of the physical testing of the Phoenix Fire department, on October 9, 1998; Dr. Richard Guess, emergency room physician and the supervisor of Downey Fire Department medical-exam process, on August 21 and November 16, 1998; Ronald Benway, Assistant Laboratory Manager at Downey

Community Hospital, the Medical Testing Facility for the Downey Fire Department on November 9, 1998; Jerry Jordon of the California Department of Motor Vehicles, staff person in the Commercial Driver's License Unit, on November 23 and 25, 1998; and Mark Lies, III, recognized and published labor law attorney from Chicago on November 25, 1998.

The recognized recommendations and requirements required more than comparison. In many cases explanations from subject-matter experts were required to clarify the history of the current medical examination and to interpret the demands of the most recent publications.

Once the literature review and comparisons were completed a new Downey Fire Department medical examination was formulated. The new policy was then reviewed by the physician in charge of the medical-examination program for feasibility, accuracy and efficiency.

### **Limitations**

This project was limited by a number of factors. First, little has been written on medical examinations for firefighters. Recommendations and standards exist but only recently have any attempts been made to formulate a compliant examination for fire-service members. Second, discrepancies abound in the examination depth required to satisfy the statutory demands and the local physician who must approve each firefighter before he or she works with respirators. Third, the medical examination itself may be forced to change again when the Age Discrimination Employment Act is reevaluated in the year 2000 and physical performance is recognized as a component of the medical examination. Fourth, because of the recent OSHA Respiratory Standard

changes, fire departments may find that the choices for compliant medical examinations may be more limited than originally considered [certification by the evaluation of a questionnaire]. Finally, budgetary conditions may or may not impact a fire department's ability to medically examine a firefighter to a sufficient depth to monitor his/her health. Without question, time constraints on this project have limited the scope of the research.

### **Definition of Terms**

Medical evaluation, the analysis of information for the purpose of making a determination of medical certification. Medical evaluation can include a medical examination.

Medical examination, an examination performed or directed by the fire-department physician that incorporates the components described in Section 2-4.1.4 of NFPA 1582 (1997).

## **RESULTS**

### **Answers to Research Questions**

Research Question 1. What medical examination requirements exist relative to the fire service on a national level?

On the national level only the Occupational Safety and Health Administration has statutes specifically requiring fire departments evaluate their members' abilities. The *Standard for Respiratory Protection* (29 CFR 1910.34, 1998) demands firefighters be annually certified by a physician or other licensed health-care professional (PLHCP). Utilizing an employee questionnaire reviewed by the PLHCP or an actual medical examination by the PLHCP, firefighters must obtain written approval to operate their respirators from the PLHCP.

Although the above standard is the only national regulatory demand of fire departments to evaluate the medical condition of their firefighters, OSHA has recognized the National Fire Protection Association standards process under *General Duty Clause* (Section 5(a)(1), OSHA, 1998). The recognition of industry standards outside of OSHA regulations is acceptable when an industry has recognized a hazard and has developed methods to deal with it (Lies, 1998). Therefore, NFPA standards 1500 and 1582 are relative to fire department medical examinations even though they may not be adopted by the local agency.

NFPA 1500, *Fire Department Occupational Safety and Health Program* (1997) requires the medical evaluation and certification of all suppression firefighters, on at least an annual basis, by the fire-department physician.

NFPA 1582, *Standard on Medical Requirements for Firefighters* (1997) requires the fire-department physician annually certify each firefighter meets the medical requirements of Chapter 3 (NFPA 1582, 1997). NFPA 1582 allows the fire-department physician to utilize qualified personnel to perform the annual medical evaluation but demands the results be reviewed by the fire-department physician.

In Chapter 3 of NFPA 1582 (1997), medical conditions are characterized as Category “A” or “B.” Category “A” conditions, if identified, would prohibit that person from being certified as meeting the medical requirements of the standard. Category “B” conditions, if identified, may prohibit the person from being certified as meeting the standard. Category “A” and “B” conditions are delineated in the chapter in regard to the parameters of the severity of each condition and how it may impact the performance of

that person in firefighting with or without accommodation. The fire-department physician is the principal decision maker in these incidents.

NFPA 1582 (1997) requires the annual medical evaluation consist of:

- An interval medical history
- An interval occupational history, including significant exposures
- Height and weight
- Blood pressure

NFPA 1582 (1997) requires firefighters be medically examined at the following frequencies:

- Age 20-29 - every 3 years
- Age 30-39 - every 2 years
- Age 40 and above - every year

The medical examinations required by NFPA 1582 (1997) include the following components with acceptable parameters where appropriate:

- Vital signs will be taken, including pulse, respiration, blood pressure, and when appropriate, temperature. Only blood pressure has a recognized ceiling of not more than 180/100.
- An analysis of all of the systems of the body will be performed, of specific interest are any findings of category “A” or “B” medical conditions during the course of the examination.
- Pulmonary testing is recommended.
- Laboratory testing (CBC, urinalysis, and blood biochemistry (SMA)), diagnostic imaging and electrocardiography are listed as “if indicated” during

examination intervals; however, no guidelines are listed for the test results (NFPA 1582, 1997).

- In regard to measurable eye and ear testing, members must have corrected far vision acuity of at least 20/30 binocular and far visual acuity uncorrected of 20/100 binocular. For long-term wearers of contacts the uncorrected criterion is not applicable. Peripheral vision must be 140 degrees, uncorrected, in each eye. For hearing tests no requirements exist that would prohibit a person from being certified. Although, conditions of hearing identified in the worse ear greater than:
  - 25 dB in three of the four frequencies (500 Hz, 1000 Hz, 2000 Hz, 3000 Hz)
  - or, 30 dB in any of the three frequencies (500 Hz, 1000 Hz, 2000 Hz) and an average of greater than 30 dB for the four frequencies (500 Hz, 1000 Hz, 2000 Hz, 3000 Hz) may be grounds for a fire-department physician to find a person not certifiable as meeting the standard.

Research Question 2. Do any other standards, recommendations, or requirements exist outside of the national standards that impact the Downey medical examination procedures? If so, what are the standards, recommendations and requirements?

Research revealed one requirement outside the national standards and requirements and one recommendation relating to fire-service medical examinations.

The California Department of Motor Vehicles *Medical Examination Report* delineates the medical examination requirements for California drivers operating

commercial vehicles. Based on the definition of “commercial,” fire departments should not be regulated by this standard; however, the DMV, recognizing the size of fire-department vehicles, has created a non-commercial classification especially for firefighters. It should be noted, however, that even this classification itself does not require the DMV medical-examination report. The non-commercial firefighting license only requires a self-done health questionnaire from the firefighter. It is important to note that because the Downey Fire Department offers ambulance transport for a fee of the residents of Downey, the DMV would normally require Downey firefighters to hold an *Ambulance Driver Certificate* regardless of the driver’s license rating (commercial or non-commercial). Drivers holding ambulance driver certificates are required to be medically examined and certified by a physician, chiropractor, physician’s assistant, or advanced-practice nurse every two years; however, once again an exemption for firefighters exists. Therefore, although not required, Downey firefighters who may be in a position that requires him/her to drive a fire-department ambulance are assumed to be capable by the DMV by reason of their firefighter position (one that requires a higher level of medical condition and examination frequency). Absent this conclusion the DMV would be placing government agencies above the law. An additional rationale for this conclusion may be concern for an unfunded mandate in regard to medical examinations required by the DMV.

A recommendation on medical examinations was developed by a joint committee of the International Association of Firefighters (IAFF) and the International Association of Fire Chiefs (IAFC). The committee developed the recommendation as part of a wellness/fitness initiative. The essential participants in the project were ten fire chiefs

and union presidents from ten of the nation's fire departments with a history of cooperation between labor and management, among other things (Dezalan, 1997).

Both of the medical examinations mentioned above have many similarities. A comparison of each category is appropriate.

The IAFF/IAFC committee requires their medical examination be completed once a year. As mentioned earlier the DMV requires a medical examination every two years. Both examinations must be completed by a health professional. In the case of the IAFF/IAFC exam, a fire-department physician must oversee the examination.

Both of the medical examinations require the patients to fill out a medical history questionnaire. The IAFF/IAFC requires this information be evaluated against the patients' past examinations. The DMV examination has no such requirement.

The IAFF/IAFC medical examination requires vital signs be taken but does not list any maximums. Instead, it urges health-care providers "follow up" if abnormalities are found. The DMV recommends further testing if the blood pressure is found to be consistently over 160/90 mm. The DMV requires the resting heart rate be noted and again after two minutes of exercise. No parameters are given on these two heart rates.

The DMV and IAFF/IAFC examinations require an actual physical examination of the patient by the health-care provider of all of the major body systems.

Visual acuity of 20/40 with or without correction and peripheral vision of at least 70 degrees is required by the DMV examination. No limitations are offered by the IAFF/IAFC exam. The DMV requires patients have the ability to distinguish between green, amber, and red. Finally, both examinations require the eyes be checked for any sign of disease or injury.

Hearing is tested in the DMV exam by whispering in the better ear, with or without hearing, and noting the maximum distance of a positive response. A minimum of five feet is considered passing. If Hz's are used, the 500, 1000, and 2000 ranges must be tested. However, no requirements are listed. The IAFF/IAFC recommends a physical examination of the ear as does the DMV.

The chest and pulmonary system are required to be checked by both medical examinations. The IAFF/IAFC exam requires a full physician's examination as well as a chest X-ray every 5 years (recommended every 3 years) and annual spirometry testing as a minimum. The DMV requires X-rays as needed and does not delineate the examination procedures.

The IAFF/IAFC and DMV require an examination of the heart by auscultation and evaluation of the patients for any evidence of cardiovascular disease or any heart/circulation abnormality. The IAFF/IAFC requires a resting EKG be performed. The DMV requires this if indicated.

The DMV and IAFF/IAFC examinations require the gastrointestinal system be evaluated as well as the abdomen for any disease processes, defects, or injuries.

The two medical examinations require the evaluation of mental and neurological processes by physical examination.

The only laboratory analysis required by the DMV is for urinalysis. Here the evaluation is for specific gravity, albumin, and sugar. The IAFF/IAFC examination requires a wide battery of chemical testing be performed on firefighters (Table 1).

The IAFF/IAFC medical examination goes beyond the DMV physical by requiring the following evaluations:

- Body composition
- Cancer screening (chemical/physical)
- Infectious disease screening (TB, Hepatitis B, Tetanus/Diphtheria, MMR, Polio)
- For high-risk members (USAR, HAZMAT, SCUBA teams) and those with exposures (HIV, Hepatitis A)

Research Question 3. What are the differences between the Downey medical examination and the recognized standards, recommendations, and requirements?

The medical-examination process can be divided into six distinct sections:

1. Frequency - How often an examination is performed
2. Examination parameters - Who performs the examination and what body systems and functions the examination includes
3. Medical history - The process of reviewing past records, exploring/reporting events since the last examination, evaluating current conditions
4. Laboratory testing - Blood, urine, occult blood test, PSA
5. Examination procedures - The physical examination itself, vital signs, vision, audiometry testing, reflex testing, digital examination, strength
6. Monitored testing - Electrocardiogram, VO2, stroke screen

Therefore, to evaluate the Downey procedures the above six sections must be compared and contrasted (see Table 1).

In regard to frequency, the Downey schedule requires firefighters be medically examined with less frequency than any of the standards or recommendations. NFPA

1582 (1997) recommends the same frequency for 20 – 29-year-olds, increases the frequency of the Downey 30 – 39-year-olds to every two years, and requires 40-year-olds and older firefighters be evaluated yearly. The DMV requires medical examinations every two years, and the IAFF/IAFC project requires examinations yearly.

The Downey medical examination parameters appear to be in line with the standards and recommendations. The actual examination is performed by a doctor with assistance of other professionals. The body functions and systems examined and evaluated all match or exceed the standards.

The Downey pre-examination medical-history forms do not cover all of the OSHA fields required for the respiratory standard medical survey. However, since the physician gives a report at the end of the examination with recommendations, the medical survey is not required on years the firefighters are examined. For the years firefighters are not tested, obviously the OSHA medical survey must be completed by the member and evaluated and certified by the licensed health-care professional. The DMV, NFPA, and IAFF/IAFC requirements and recommendations are all covered by the Downey medical questionnaire when the OSHA medical survey is included.

The Downey laboratory tests surpass the requirements and recommendations of IAFF/IAFC, DMV, NFPA, and OSHA with few exceptions. The IAFF/IAFC recommendation of a test for carbon dioxide levels in the blood and two of the five liver-function (SGPT/ALT, LDH) are the only tests not covered by the Downey laboratory work. In an interview with Robert Belway, he explained other tests performed would give indicators leading to the possible choice of those tests for further evaluation (Belway, Personal Communication, November 1998).

Examination procedures of the Downey process meet or exceed all of the physical demands of the recognized standards and recommendations except the IAFF/IAFC recommendation of a digital rectal examination annually. The Downey examination includes this procedure on members over 45 years old.

The monitored testing included in the Downey medical examination meets the recognized standards and recommendations except in the area of chest X-rays. Only new recruits are evaluated with chest X-rays. The Downey procedures exceed the standards and recommendations in the area of VO2 max [an efficiency test of the body's use of oxygen when under stress] and stroke screening [ultrasonic imaging of the carotid arteries]. Body composition is measured in terms of body fat. Muscle strength is evaluated by having firefighters perform a maximum lift in the bench press and leg-lift exercises and uses sit-ups performed in one minute to test for abdominal condition. Flexibility is evaluated utilizing a toe-touch apparatus.

Downey new-recruit firefighters are given a knee X-ray and a drug screen before they start work in the training tower.

Research Question 4. Are there any fire departments or organizations who meet all of the requirements of the standards, requirements, and recommendations?

The Phoenix Fire Department was one of the IAFF/IAFC projects and has been an active participant in the NFPA standards process. These facts contributed to the decision that a field visit was necessary for this research.

The field visit (October 9, 1998) revealed the Phoenix Fire Department met the standards, recommendations, and requirements with few exceptions. In regard to the Phoenix medical examination, only the frequency of examination [in Phoenix every 15

months; they have five divisions] and the IAFF/IAFC recommended laboratory tests for liver function are not compliant with the standard.

Due to time and monetary constraints none of the other fire departments involved in the IAFF/IAFC project were contacted. However, the Los Angeles Fire Department is working on adopting the IAFF/IAFC procedures (J. Miller, Personal Communication, October, 1998).

Research Question 5. Is it possible to develop a new medical examination program that addresses all of the parameters of the standards, requirements, and recommendations?

In a word, certainly. The NFPA, DMV, OSHA, and IAFF/IAFC standards, requirements, and recommendations do not contra-indicate or conflict with each other. They all build on each other according to their individual demands.

For the DMV, their standard is written to ensure driver's operate vehicles safely and has nothing to do with a firefighter's physical performance in an emergency situation.

For the NFPA standards and the IAFF/IAFC project, a firefighter's physical performance on the emergency scene is what is important. Ensuring firefighters are prepared through preventative processes and annual testing, examination, evaluation, and certification are the methods the NFPA and IAFF/IAFC utilize to achieve the objectives.

For OSHA, the *General Duty Clause* and the respiratory standard demand firefighters be certified by a licensed health-care professional of their ability to use respiratory equipment in atmospheres immediately dangerous to life and health.

Research Question 6. What are the requirements of the new Downey Fire Department medical-examination program?

Once again the medical-examination process can be divided into six sections. The requirements of the new Downey Fire Department (DFD) medical examination are as found below.

Medical examinations will be performed on all DFD firefighters annually regardless of age. This satisfies all of the standards, requirements, and recommendations of all the relative organizations who control or provide direction to the DFD.

The medical examination will be supervised and/or performed by the fire-department physician appropriately aware of the demands of emergency-service work, firefighter equipment, and the occupational hazards that exist. The scope of evaluation will include a physical examination of all body systems and functions, including laboratory and monitored testing. Appropriate time will be set aside for a determination of medical history, present medical conditions, risk factors of the future, and recommendations for references or counseling. Upon completion of the entire medical examination process, both the firefighter and the department will be notified in writing of the results. Whether or not the firefighter is certified to work as a firefighter with a respirator in an IDLH atmosphere is the only personal information that will be passed along to the DFD. Other records of the medical examination will be managed according to OSHA standards.

Firefighters will be required to complete a comprehensive medical-history document as well as the DMV and OSHA Respiratory Standard medical questionnaire.

The DMV form, once completed by the firefighter, will be reviewed by the fire-department physician. The fire-department physician will then finish his/her portion of responsibility for the examination and, if appropriate, sign the document. The DFD will ensure this document is mailed and filed with the DMV. The OSHA respiratory medical questionnaire, one completed, will be filed with the firefighter's medical records for background and documentation.

The following laboratory testing will be included with the DFD medical examination (also in Table 1):

- CBC
- biochemistry
- coronary risk
- occult blood
- Urinalysis
- P.S.A. (firefighters over 40 years old)

The fire-department physician will supervise and/or perform a physical examination of the firefighter that includes evaluation of all vital signs, all body structures and functions, and reflex testing. For firefighters requiring digital rectal examinations, 45 years old and older, the fire-department physician will ensure this procedure is completed.

The monitored testing of all firefighters will include a stress electrocardiogram (Bruce standards), vision tests, audiometry tests, spirometry and body-composition measurements. The following monitored tests will be performed on age-appropriate schedules unless indicated by other information:

- Stroke screening - every year after age 49
- Chest X-ray - every five years, all ages

The weight-lifting portion of the existing Downey Medical examination is terminated. Body strength and the physical ability to perform the essential tasks required of a Downey Firefighter will be evaluated utilizing a physical-ability test. This assessment will be comprised of actual firefighter tasks found relevant by a study of the duties of a Downey Firefighter.

Immunizations and screening for the following infectious diseases will be performed as appropriate during the annual physical:

- Hepatitis A, B, and C
- Flu
- Measles, Mumps, Rubella
- Tetanus, Diphtheria
- TB skin test
- HIV blood test (if appropriate)

### **Interview Results**

The interview with Battalion Chief Williams of the Phoenix Fire Department exemplified the direction of the literature, that is to monitor and examine your firefighters, provide them with the tools needed to carry out their activities and tasks, provide solutions to the hazards they encounter, and to certify their abilities (Williams, Personal Communication, October 9, 1998).

A phone interview with Jerry Jordon of the DMV confirmed the medical examination requirements for firefighters who drive commercial ambulances; they must

be fully examined and certified for duty every two years (Jordan, Personal Communication, November 1998).

Interviews with Dr. Richard Guess, emergency room doctor at Downey Community Hospital and attending physician of the Downey medical-examination process, clarified several areas of concern involving medical examinations and the standards, recommendations, and requirements.

First, certain portions of the current DFD medical examination were excessive and not necessarily valid for firefighters. Performing medical tests on young, healthy firefighters for stroke screening and prostate cancer was not indicated. Testing all firefighters for strength, flexibility, and VO2 max as it relates to their ability to perform their essential tasks was more than likely best done utilizing some form of physical-ability testing using a fire ground standard (Guess, Personal Communication, October-November 1998). VO2 max results can be extrapolated from the already performed stress electrocardiogram, to a high degree of certainty, without having to perform the costly VO2 max test (IAFF/IAFC, 1997).

Dr. Guess remarked philosophically...“Nothing good comes from physicals (for the employee)”...When questioned about that statement, he confided that the results of medical examinations more often than not reveal areas of concern for those examined.

In a phone interview Attorney Mark Lies, III confirmed several points regarding the Americans with Disabilities Act (ADA) and OSHA. Attorney Lies is a published author and recognized for his expertise with labor law. The course of conversation confirmed the ADA gives a wide berth, relative to medical examinations and performance requirements, to organizations providing public-safety activities and

recognizes the demand to perform essential tasks is paramount to the fire service to ensure the safety of the firefighter and the firefighter's crew. Attorney Lies's discussion of the relevance of the *General Duty Clause* and the fact that the fire service has recognized the hazards of firefighting and has published measures on dealing with such hazards (NFPA 1500, 1582) solidifies the need to comply with such standards. Finally, Attorney Lies offered an alternative analysis of the purpose of the OSHA Respiratory Standard medical questionnaire, in lieu of an actual medical examination; a method of shifting the burden of certification onto the fire departments and their physicians. This shift may then enable OSHA to escape the unfunded-mandate charge normally leveled in cases of OSHA regulation (Lies, Personal Communication, November 25, 1998).

Following the latter thought, Dr. Guess questioned the incentive for firefighters, young or old, to report medical problems on the respiratory standard medical questionnaire. In the case of probationary or near retirement-age firefighters, severe financial impacts may fall on those who report problems that are not repairable.

Finally, and perhaps most importantly, Dr. Guess expressed his discomfort and reluctance with the requirement that he certify firefighters of all ages and physical conditions based solely on a self-completed medical questionnaire (Guess, Personal Communication, October-November 1998).

### **Unexpected Findings**

The DMV medical examination requirements for firefighters operating commercial ambulances were surprising. The DFD has had an ambulance-transport program since 1986 and has had their commercial driver's license program, of which all firefighters are licensed, audited several times without any knowledge or finding of the need for the

ambulance driver certificate or the exemption, the bi-annual medical examination, or the thumb print required by the United States Department of Justice. Regardless of the exemption, it is important to note that DMV requires medical examinations every two years from those in the private sector.

In an explanatory section of the medical-evaluation portion of the OSHA Respiratory Protection Standard (1998) OSHA recognizes that:

...certain work-place conditions or job requirements, such as SCBA use, being an emergency responder or a member of a HAZMAT team working in an IDLH atmosphere, wearing heavy protective clothing or performing heavy physical work may warrant a medical examination (29 CFR 1910.34).

The recognition by OSHA of a potential need for medical examination of those respirator users whose essential tasks are beyond the normal scope of the Respiratory Protection Standard closely resembles the section of NFPA 1582 (1997) that considers the essential functions of what firefighters are expected to perform:

...must perform physically demanding work...

...wear personal protective equipment that weighs approximately 50 pounds while performing firefighting tasks...

...perform physically demanding work while wearing positive pressure breathing equipment...

...face exposure to carcinogenic dusts such as asbestos, toxic such as hydrogen cyanide, acids, carbon monoxide, or organic solvents (NFPA 1582, 1997, p.33).

Clearly OSHA understands the magnitude of firefighting and emergency work, even though they do not require a higher standard of examination.

The State of California, even though it has its own office of OSHA [Cal-OSHA], must at least regulate safety issues to the same degree as Fed-OSHA (OSHA Act, 1970). This fact is cogent to the OSHA Respiratory Protection Standard, the State must adopt a standard that is at least as effective. Additionally, state and local government workers must be covered as effectively as those workers in the private sector (OSHA, 1998).

## **DISCUSSION**

If the purpose of this research is to develop a compliant medical examination for the Downey Fire Department that is compliant with national, state, and local standards and recommendations, then it seems logical to be certain there is a problem. Then set out to repair the problem.

First, it must be determined that the Downey medical examination is non-compliant. From a review of the literature it is known that the frequency of examinations required by NFPA 1500 and 1582 (1997) is greater than the Downey policy. From the OSHA respiratory protection *Final Rule* (1998) it is known that, at the minimum, a medical evaluation must be performed annually by a physician by reviewing a medical questionnaire filed by each firefighter. We also know that the California DMV has exempted firefighters from the requirement of a bi-annual medical examination with laboratory work (DMV, 1998) by allowing them to fill out another health questionnaire. It is assumed that the DMV trusts the fire service is testing its firefighters at a greater frequency than once every two years. Therefore, with reasonable certainty we know the Downey medical examination does not meet the standards and recommendations.

Next we must evaluate the various options available to remedy this problem. Once again, from the literature, several have addressed this problem. The NFPA, in their 1997 firefighter fatality studies (1998 ) found over forty-two percent of the firefighters who died in 1997 died from heart attacks. These results are nearly the same as the results over the last twenty years (Washburn, et al., 1998). One of the recommended remedies from the NFPA study group is the annual medical examination of all firefighters.

In a jointly-written document by the IAFF/IAFC, it is recommended that all firefighters receive annual medical examinations (1997). Newman and Malone found annual medical examinations and testing elementary in the attempt to find firefighters who were at risk and who needed lifestyle modification (1986).

A search for fire departments with compliant medical examinations found surprisingly few departments had embraced the standards and recommendations. While many were medically examining their firefighters few were doing so at the recommended frequency or to the depth recommended and required.

At several points in the research, the Americans with Disabilities Act (ADA) was mentioned as a hindrance to the medical-examination process. However, Attorney Mark Lies, III, in his article in *The Voice* (1997), dispels the concern for problems associated with the ADA and medical examinations. He goes on to write that departments have the right and the obligation to set standards to match the essential functions they require their firefighters perform as well as a duty to ensure the health of their work force.

While NFPA 1500 and 1582 (1997) require annual medical evaluations be performed by physician review, with a medical examination required on an age-related schedule, this research has found ample cause (OSHA) and recommendation (NFPA, DMV) to require yearly medical examinations of all firefighters. Godwin (1996) arrived at similar conclusions when he did his research on this subject in December of 1996 without the aid of NFPA 1500 and 1582 (1997), the jointly-written IAFF/IAFC project, or the OSHA Respiratory Standard (1998). In a telephone interview Chief Godwin noted improved performance in regard to the Coppell Firefighters since the medical-examination process has been in place. He went on to say the annual examinations are now part of a fitness testing process implemented in 1998 (J. Godwin, Personal Communication, December 2, 1998).

However, Marsh (1997) found physical-ability testing imperative but disagreed on the frequency of medical examinations. He recommended following the NFPA age schedule.

With regard to compliance, the recommendations of Marsh (1997) nearly meets the minimum standard today. It only lacks the annual written medical evaluation by a licensed health-care professional. However, it is unknown how the medical-evaluation program will work out.

Newman and Malone (1986) found that annual medical examinations were cost effective in their study and provided ancillary benefit to firefighters by encouraging them to maintain or develop healthy lifestyles thereby lowering their risk for injury or death from cardiac arrest. It is important to note that this article did not address legal or regulatory issues but does provide an example of how one fire department aggressively

addressed the need for annual medical examinations and their experience with the results.

Significance is found in the *General Duty Clause* (OSHA Act, 1970). The section provides:

Each employer (1) shall furnish to each of his employee's employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees.

Clearly, the *General Duty Clause* gives direction to employers to provide training for employees to perform the essential functions of the trade.

Therefore, the conclusion of this research, that thorough firefighter medical examinations shall be performed annually, does not concur exactly with the literature reviewed. However, several standards and recommendations effecting firefighter medical examinations have been published since the writings of Godwin (1996) and Marsh (1997).

In Chief David Paulison's *On Scene* presidents column, he writes, "We spend a significant amount of money monitoring equipment and apparatus. It just makes sense to use our money to help maintain our most important resource: our employees" (1997). A similar comment was noted in the conference report from a meeting in 1996 of fire chiefs from across the country (Wingspread IV, 1996, p. 7). It was noted that..."more is known about the apparatus and equipment it [fire departments] purchases than the firefighters who use the equipment." Both of those comments bode well for improving the quality of firefighter medical examinations and increasing the frequency.

In the Downey Fire Department a major “service” is performed on all fire engines every six months with a minor “service” in between each major. That’s four physical examinations every year for every apparatus. It would seem appropriate to examine our firefighters at least once every year.

The results of this research concur with the above comments. If our people are important` it makes sense to care for them and ensure their ability to perform the essential functions required of Downey Firefighters. Furthermore, to not provide a compliant medical examination for Downey Firefighters places the fire department and the City of Downey at risk in regard to legal-compliance issues (NFPA, OSHA). Fire-service managers must ensure their departments maximize efficiency and minimize liability by framing policies and procedures to answer known problems and then follow those procedures (H. Markham, NFA lecture, June 1998).

The impact of this research will affect the Downey Fire Department operationally and fiscally. First, the additional medical examinations will require additional scheduling to accommodate the increase of forty annual medical examinations. These examinations actually require two appointments; one for the testing, another for the follow-up conference with the physician.

Finally, the fiscal impact of the annual medical-examination program will more than double the amount budgeted for 1998/1999. While this is a significant amount relative to a percentage increase, the entire amount required for annual medical examinations is less than one half of one percent of the fire department’s operating budget.

More importantly the implementation of the annual medical examination will provide a number of benefits to the Downey Fire Department and its firefighters. Beyond the legal-compliance issues, the City and the department will be ensured of a healthy and able work force. The allocation of the resources, both personnel and financial, speaks to the importance the organization places on its staff and their well-being. Finally, for the firefighters, they will have the examinations that can lead them to healthier careers and lives.

### **RECOMMENDATIONS**

It is recommended that the Downey Fire Department adopt the new annual medical-examination program (Appendix A) [specifies in Table 1] developed from this research. The program will cover all Downey Firefighters and track their medical history from their pre-service medical examination through their last in-service examination.

The Downey Fire Department should take the following steps to complement the recommendations:

- Prepare a request for proposal (RFP) for the annual medical-examination program that includes the number of firefighters, the scope of testing, the examination procedures, and the record-keeping required.
- Evaluate NFPA 1582 standard for medical requirements for firefighters (1997) as it is reviewed for the 2002 edition and, if appropriate, make changes to the Downey medical-examination program.

- Monitor the progress and acceptance of the IAFF/IAFC project and consider adopting successful aspects of this document/process into the Downey medical-examination program if appropriate.
- Utilize the recommendation as the beginning of a comprehensive plan to ensure the health of the Downey Firefighters that includes mental health and nutrition counseling.
- Begin development of a validated physical-ability test for all firefighters to be administered with the annual medical examination.

## REFERENCES

- California Vehicle Code. (1998). Author.
- Department of Health and Human Services, Public Health Services. (1998). Clinician's Handbook of Preventative Services. *Put Prevention into Practice* (2<sup>nd</sup> ed.). Washington, DC: Author.
- Department of Motor Vehicles. California Commercial Driver Handbook. (1998). Author.
- Dezelan, L.A. (1997, February). Firefighter fitness is now on the front burner. *Fire Chief*, 41, 56-58.
- Duffy, Rich. (1996, August). IAFF supports physical fitness, but...*Health and safety*, 7, 14.
- Godwin, J. (1996, December). *Fit for duty standards in the fire service for recruit and incumbent firefighters in the Coppel Fire Department*. (Applied Research Project). Emmitsberg MD. National Fire Academy, Executive Fire Officer Program.
- International Association of Fire Chiefs Foundation. (1996). *Wingspread IV: Statements of critical issues to the fire and emergency service in the United States*. (A Wingspread conference report of the International Association of Fire Chiefs Foundation held in Dothan, AL, October 23-25, 1996). York, PA: Author.
- International Association of Firefighters. (1997). The Fire Service Joint Labor Management Wellness/Fitness Initiative. Washington, DC: Author.
- Kartor, Michael, & LeBlanc, P. (1998). 1997 U.S. Firefighter injuries. NFPA. Quincy, MA.
- Lies, M.A.III. (1997, February). OSHA and the fire service. *The Voice*, 26, 1-10.
- Marinucci, R.A. (1996, June 15). Sorting out questions about firefighter fitness NFPA 1583, combat challenge issues. *IAFC On Scene*, 10, 1+.
- Marsh, A. (1997, September). *New medical/physical standards for Frederick County Firefighters*. (Applied Research Project). Emmitsberg, MD. National Fire Academy, Executive Officer Program.
- National Fire Protection Association. (1997). *NFPA 1500: Standard on fire department occupational safety and health programs* (1997 ed.). Quincy, MA: Author.

- \_\_\_\_\_. (1997). *NFPA 1582: Standard for medical requirements for firefighters* (1997 ed.). Quincy, MA: Author.
- \_\_\_\_\_. (1994). Analysis Report on Firefighter Fatalities: Fatalities Resulting From Heart Attacks. (1984-1993). Quincy, MA: Author.
- \_\_\_\_\_. (1992). Standard for Firefighter professional qualifications. (1997 ed.) Quincy, MA: Author.
- Newman, B.G., & Malone, L.C. (1986, March). Cardiovascular stress testing: Preventive medicine that works. *Fire Chief*, 30, 26-38.
- Occupational Safety and Health Act. (December 29, 1970). Public Law, 91-596. Author.
- Occupational Safety and Health Administration Respiratory Protection; Final Rule, 29 CFR parts 1910 and 1926. (1998). Author.
- Occupational Safety and Health Administration. *General Duty Clause*, sec. 5(a)(1). (December, 1970). Author.
- OSHA Documents. (November 25, 1998). Interim Enforcement Procedures...[Internet] Available: [www.oshaslc.gov/oshadoc/interpdata/i19870908a](http://www.oshaslc.gov/oshadoc/interpdata/i19870908a).
- Paulison, R.D. (1997, July 15). New labor/management fitness initiative will enhance Current firefighter fitness standards. *IAFC On Scene*, 11, 6.
- Rukavina, J. (1997, March). The fire service has one more chance. *Fire Chief*, 41, 22-23.
- Seymour, T. (1998). *A comprehensive analysis of the Respiratory Protection Standard 29 CFR 1910.34*. [A document written for the IAFC] University of Maryland Fire and Rescue Institute.
- Washburn, A.E., LeBlanc, P.R., & Fatty, R.F. (1997, July/August). Firefighter Fatalities. *NFPA Journal*, 91, 46-53.



## APPENDIX A

### DOWNEY FIRE DEPARTMENT

DATE:	11/25/98	GENERAL ORDER NO. 20
TO:	All Personnel	DISTRIBUTION: Stations 1 2 3 4 BC's (a b c), FPB, Dispatch
FROM:	Ronald S. Irwin, Fire Chief	
SUBJECT:	<b>MEDICAL EXAMINATIONS</b>	

Fire Department medical examinations shall be scheduled during the first six (6) months of the new fiscal year (July 1 – December 31).

The scheduling of examinations shall be coordinated through the Administrative officer and the shift Battalion Chief.

All fire safety personnel will participate in the annual medical examination program.

The medical examination shall consist of the following procedures:

1. A pre-examination packet will be mailed to the member at least one month before the scheduled examination. The packet includes a health-history section, a Department of Motor Vehicles medical examination report, and an OSHA health questionnaire. All portions of the pre-examination packet will be completed prior to the date of the medical examination.
2. A medical examination by the department physician will be administered along with the following procedures:
  - Total body and system physical examination including all vital signs, weight, height.
  - Monitored tests including: EKG, vision, spirometry, audiometry, body composition (chest X-ray, stroke screening when appropriate).
  - Laboratory tests including: CBC, Bio-chemistry, coronary risk, occult blood, urinalysis (P.S.A. for firefighters over 40 years old).
3. A follow-up consultation with the fire-department physician will be scheduled at such time when all examination results are complete. During this time the physician will discuss pertinent findings, preventative health practices, and answer any health questions of the member. The fire-department physician may determine future follow-up examinations, treatments, or referrals are necessary. Before the completion of the visit, the fire-department physician will determine the member's ability relative to DMV and OSHA regulations and document his/her findings on the appropriate forms.

## **APPENDIX A**

4. Members will be screened, evaluated, and immunized, when appropriate, for the following infectious diseases:
  - Hepatitis A, B, C
  - Flu
  - Measles/Mumps/Ruebella (MMR)
  - Tetanus/Diphtheria
  - T.B.
  - H.I.V.

DOWNEY FIRE DEPARTMENT

Ronald S. Irwin  
Fire Chief

**APPENDIX B**

DATE: June 24, 1994 GENERAL ORDER NO. 20  
TO: All Members DISTRIBUTION: Stations 1 2 3 4  
FROM: Ronald S. Irwin, Fire Chief BC's (a b c), FPB, Dispatch  
SUBJECT: **DEPARTMENT PHYSICAL EXAMINATIONS**

Fire Department physicals shall be scheduled during the first six (6) months of the new fiscal year (July 1 - December 31).

The scheduling of physicals shall be coordinated through the Administrative office and the individual shift Battalion Chief.

- A. Fire safety personnel under the age of 45 shall be scheduled for a physical exam every 3 years.
- B. Fire safety personnel age 45 to 50 shall be scheduled for a physical exam every other year.
- C. Fire safety personnel over the age of 50 shall be scheduled for a physical exam every year. Exception: Fire safety personnel between the ages of 50 and 55 may elect to take a physical every other year, or until they reach the age of 55 at which time they will become mandatory.

**DOWNEY FIRE DEPARTMENT**

Ronald S. Irwin  
Fire Chief

Bw  
4:GO20

## APPENDIX C

The annual medical evaluation shall include a medical examination according to the following schedule:

Age 29 and under - every 3 years

Age 30-39 - every 2 years

Age 40 and above - every year

NFPA 1582 Section 2-4.1.3 delineates the areas the medical examination must cover. These areas are:

- |  |   |
|--|---|
| (a) Vital signs, namely pulse, respiration, blood pressure, and, if indicated, temperature | (i) Musculoskeletal system                      |
| (b) Dermatological system  | (j) Neurological system                         |
| (c) Ears, eyes, nose, mouth, throat  | (k) Audiometry                                  |
| (d) Cardiovascular system  | (l) Visual acuity and peripheral vision testing |
| (e) Respiratory system   | (m) Pulmonary function testing                  |
| (f) Gastrointestinal system  | (n) Laboratory testing, if indicated            |
| (g) Genitourinary system   | (o) Diagnostic imaging, if indicated            |
| (h) Endocrine and metabolic systems  | (p) Electrocardiography, if indicated           |

**APPENDIX D****CITY OF DOWNEY  
FIRE DEPARTMENT****MEDICAL QUESTIONNAIRE**Included within:

DMV Form 051

DMV Form 046

DCH Pre-exam Questionnaire

OSHA Questionnaire Appendix C (29 CFR 1910.34)

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Print Firefighter Name

The above-listed firefighter has met the requirements for certification (OSHA, NFPA) for firefighting and emergency operations utilizing Positive Pressure Self-Contained Breathing Apparatus.

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F.D. Physician Signature

November 1998

**PART A.**

**Section 1. (Mandatory)**

**The following information must be provided by every employee who has been selected to use any type of respirator (*please print*).**

1. Today's date: \_\_\_\_\_
2. Your name: \_\_\_\_\_
3. Your age (to nearest year): \_\_\_\_\_
4. Sex (Circle one):     Male / Female
5. Your height:   Ft.   \_   In.
6. Your weight:     \_\_\_\_\_ Lbs.
7. Your job title: \_\_\_\_\_
8. A phone number where you can be reached by the health care professional who reviews this questionnaire (include the Area Code):  
\_\_\_\_\_
9. The best time to phone you at this number:
  10. Has your employer told you how to contact the health care professional who will review this questionnaire?  
(Circle one): \_\_\_\_\_ YES / NO
11. Check the type of respirator you will use (***you can check more than one category***):
  - a. \_\_\_\_\_ N, R, or P disposable respirator (filter-mask, non-cartridge type only).
  - b. \_\_\_\_\_ Other type (e.g., half- or full-face piece type, powered-air purifying, supplied-air, self-contained breathing apparatus).
12. Have you worn a respirator? (Circle one): \_\_\_\_\_ YES / NO

If "Yes," what type(s)?:

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## **Section 2. (Mandatory)**

**Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (please circle "yes" or "no").**

1. Do you currently smoke tobacco, or have you smoked tobacco in the last month?: \_\_\_\_\_ YES / NO
  
2. Have you ever had any of the following conditions?
  - a. Seizures (fits)?: \_\_\_\_\_ YES / NO
  - b. Diabetes (sugar disease)?: \_\_\_\_\_ YES / NO
  - c. Allergic reactions that interfere with your breathing?: YES / NO
  - d. Claustrophobia (fear of closed-in places)?: YES / NO
  - e. Trouble smelling odors?: \_\_\_\_\_ YES / NO
  
3. Have you ever had any of the following pulmonary or lung problems?
  - a. Asbestosis?: \_\_\_\_\_ YES / NO
  - b. Asthma?: \_\_\_\_\_ YES / NO
  - c. Chronic bronchitis?: \_\_\_\_\_ YES / NO
  - d. Emphysema?: \_\_\_\_\_ YES / NO
  - e. Pneumonia?: \_\_\_\_\_ YES / NO
  - f. Tuberculosis?: \_\_\_\_\_ YES / NO
  - g. Silicosis?: \_\_\_\_\_ YES / NO
  - h. Pneumothorax (collapsed lung)?: \_\_\_\_\_ YES / NO
  - i. Lung cancer?: \_\_\_\_\_ YES / NO
  - j. Broken ribs?: \_\_\_\_\_ YES / NO
  - k. Any chest injuries or surgeries?: \_\_\_\_\_ YES / NO
  - l. Any other lung problem that you've been told about?: YES / NO
  
4. Do you currently have any of the following symptoms of pulmonary or lung illness?
  - a. Shortness of breath?: \_\_\_\_\_ YES / NO
  - b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline?: \_\_\_\_\_ YES / NO

- c. Shortness of breath when walking with other people at an ordinary pace on level ground?: \_\_\_\_\_ YES / NO
  - d. Have to stop for breath when walking at our own pace on level ground?: \_\_\_\_\_ YES / NO
  - e. Shortness of breath when washing or dressing yourself?: YES / NO
  - f. Shortness of breath that interferes with your job?: YES / NO
  - g. Coughing that produces phlegm (thick sputum)?: \_ YES / NO
  - h. Coughing that wakes you early in the morning?: \_\_ YES / NO
  - i. Coughing that occurs mostly when you are lying down?: YES / NO
  - j. Coughing up blood in the last month?: \_\_\_\_\_ YES / NO
  - k. Wheezing?: \_\_\_\_\_ YES / NO
  - l. Wheezing that interferes with your job?: \_\_\_\_\_ YES / NO
  - m. Chest pain when you breathe deeply?: \_\_\_\_\_ YES / NO
  - n. Any other symptoms that you think may be related to lung problems?: \_\_\_\_\_ YES / NO
5. Have you ever had any of the following cardiovascular or heart problems?
- a. Heart attack?: \_\_\_\_\_ YES / NO
  - b. Stroke?: \_\_\_\_\_ YES / NO
  - c. Angina?: \_\_\_\_\_ YES / NO
  - d. Heart failure?: \_\_\_\_\_ YES / NO
  - e. Swelling in your legs or feet (not caused by walking)?: YES / NO
  - f. Heart arrhythmia (heart beating irregularly)?: \_\_\_\_ YES / NO
  - g. High blood pressure?: \_\_\_\_\_ YES / NO
  - h. Any other heart problem that you've been told about?: YES / NO
6. Have you ever had any of the following cardiovascular or heart symptoms?:
- a. Frequent pain or tightness in your chest?: \_\_\_\_\_ YES / NO
  - b. Pain or tightness in your chest during physical activity?: YES / NO
  - c. Pain or tightness in your chest that interferes with your job?: \_\_\_\_\_ YES / NO
  - d. In the past two years, have you noticed your heart skipping or missing a beat?: \_\_\_\_\_ YES / NO

- e. Heartburn or indigestion that is not related to eating?: YES / NO
  - f. Any other symptoms that you think may be related to heart or circulation problems?: \_\_\_\_\_ YES / NO
7. Do you currently take medications for any of the following problems?
- a. Breathing or lung problems?: \_\_\_\_\_ YES / NO
  - b. Heart trouble?: \_\_\_\_\_ YES / NO
  - c. Blood pressure?: \_\_\_\_\_ YES / NO
  - d. Seizures (fits)? \_\_\_\_\_ YES / NO
8. If you've used a respirator, have you ever had any of the following problems? (If you've never used a respirator, check the following space and go to question 9:)
- a. Eye irritation?: \_\_\_\_\_ YES / NO
  - b. Skin allergies or rashes?: \_\_\_\_\_ YES / NO
  - c. Anxiety?: \_\_\_\_\_ YES / NO
  - d. General weakness or fatigue?: \_\_\_\_\_ YES / NO
  - e. Any other problem that interferes with your use of a respirator?: \_\_\_\_\_ YES / NO
9. Would you like to talk to the health care professional who will review this questionnaire about your answers?: \_\_\_\_\_ YES / NO

**Questions 10 to 15 must be answered by every employee who has been selected to use either a full-face piece respirator or a self-contained breathing apparatus (SCBA). For employees who have been selected to use other types of respirators, answering these questions is voluntary.**

10. Have you ever lost vision in either eye (temporarily or permanently)?: \_\_\_\_\_ YES / NO
11. Do you currently have any of the following vision problems?
- a. Wear contact lenses?: \_\_\_\_\_ YES / NO
  - b. Wear glasses? \_\_\_\_\_ YES / NO
  - c. Color blind?: \_\_\_\_\_ YES / NO
  - d. Any other eye or vision problem?: \_\_\_\_\_ YES / NO
12. Have you ever had an injury to your ears, including a broken ear drum?: \_\_\_\_\_ YES / NO
13. Do you currently have any of the following hearing problems?

- a. Difficulty hearing?: \_\_\_\_\_ YES / NO
- b. Wearing a hearing aid?: \_\_\_\_\_ YES / NO
- c. Any other hearing or ear problem?: \_\_\_\_\_ YES / NO
14. Have you ever had a back injury?: \_\_\_\_\_ YES / NO
15. Do you currently have any of the following musculoskeletal problems? \_\_\_\_\_ YES / NO
- a. Weakness in any of your arms, hands, legs, or feet?: YES / NO
- b. Back pain?: \_\_\_\_\_ YES / NO
- c. Difficulty fully moving your arms and legs?: \_\_\_\_\_ YES / NO
- d. Pain or stiffness when you lean forward or backward at the waist?: \_\_\_\_\_ YES / NO
- e. Difficulty fully moving your head up or down?: \_\_\_\_\_ YES / NO
- f. Difficulty fully moving your head side to side?: \_\_\_\_\_ YES / NO
- g. Difficulty bending at your knees? \_\_\_\_\_ YES / NO
- h. Difficulty squatting to the ground?: \_\_\_\_\_ YES / NO
- i. Climbing a flight of stairs or a ladder carrying more than 25 lbs?: \_\_\_\_\_ YES / NO
- j. Any other muscle or skeletal problem that interferes with using a respirator?: \_\_\_\_\_ YES / NO

### Part B

**Any of the following questions, and other questions not listed, may be added to the questionnaire at the discretion of the health care professional who will review the questionnaire.**

1. In your present job, are you working at high altitudes (over 5,000 feet) or in a place that has lower than normal amounts of oxygen?: \_\_\_\_\_ YES / NO
- If "yes," do you have feelings of dizziness, shortness of breath, pounding in your chest, or other symptoms when you're working under these conditions?: \_\_\_\_\_ YES / NO
2. At work or at home, have you ever been exposed to hazardous solvents, hazardous airborne chemicals (e.g., gases, fumes, or dust), or have you come into skin contact with hazardous chemicals?: \_\_\_\_\_ YES / NO
- If "yes," name the chemicals if you know them?: \_\_\_\_\_
- \_\_\_\_\_

3. Have you ever worked with any of the materials, or under any of the conditions listed below:

- a. Asbestos?: \_\_\_\_\_ YES / NO
- b. Silica (e.g., in sandblasting)?: \_\_\_\_\_ YES / NO
- c. Tungsten/cobalt (e.g., grinding or welding this material)?: YES / NO
- d. Beryllium \_\_\_\_\_ YES / NO
- e. Aluminum \_\_\_\_\_ YES / NO
- f. Coal (e.g., mining)?: \_\_\_\_\_ YES / NO
- g. Iron?: \_\_\_\_\_ YES / NO
- h. Tin?: \_\_\_\_\_ YES / NO
- i. Dusty environments?: \_\_\_\_\_ YES / NO
- j. Any other hazardous exposures?: \_\_\_\_\_ YES / NO

If "yes," describe these exposures?:

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4. List any second jobs or side businesses you have:

---

5. List your previous occupations:

---

6. List your current and previous hobbies:

---

7. Have you been in the military services?: YES / NO

**If "yes," were you exposed to biological or chemical**

**agents (either in training or combat)?:** YES / NO

8. Have you ever worked on a HAZMAT team? YES / NO

9. Other than medications or breathing and lung problems, heart trouble, blood pressure, and seizures mentioned earlier in this questionnaire, are you taking any other medications for any reason (including over-the-counter medications)? \_\_\_\_\_ YES / NO

If "yes," name the medications if you know them:

---

10. Will you be using any of the following items with your respirator(s)?
- a. HEPA Filters?: \_\_\_\_\_ YES / NO
  - b. Canisters (e.g. , gas masks)?: \_\_\_\_\_ YES / NO
  - c. Cartridges?: \_\_\_\_\_ YES / NO
11. How often are you expected to use the respirator(s) (Circle "yes" or "no" for all answers that apply to you)?:
- a. Escape only (no rescue)?: \_\_\_\_\_ YES / NO
  - b. Emergency rescue only?: \_\_\_\_\_ YES / NO
  - c. Less than 5 hours per week?: \_\_\_\_\_ YES / NO
  - d. Less than 2 hours per day? \_\_\_\_\_ YES / NO
  - e. 2 to 4 hours per day?: \_\_\_\_\_ YES / NO
  - f. Over 4 hours per day?: \_\_\_\_\_ YES / NO

12. During the period you are using the respirator(s), is your work effort:

- a. Light (less than 200 kcal per hour)?: YES / NO

*Examples of a light work effort are sitting while writing, typing, drafting, or performing light assembly work; or standing while operating a drill press (1-3 lbs.) or controlling machines.*

If "yes," how long does this period last during the average shift?:

\_\_\_\_\_ Hrs. \_\_\_\_\_ Mins.

- b. Moderate (200 to 350 kcal per hour)?: \_\_\_\_\_ YES / NO

*Examples of moderate work effort are sitting while nailing or filing; driving a truck or bus in urban traffic, standing while drilling, nailing, performing assembly work, or transferring a moderate load (about 35 lbs.) at trunk level, walking on a level surface about 2 mph or down a 5-degree grade about 3 mph; or pushing a wheelbarrow with a heavy load (about 100 lbs.) on a level surface.*

If "yes," how long does this period last during the average shift?:

\_\_\_\_\_ Hrs. \_\_\_\_\_ Mins.

- c. Heavy (above 350 kcal per hour)?:

*Examples of heavy work are lifting a heavy load (about 50 lbs.) from the floor to your waist or shoulder, working on a loading dock, shoveling, standing while bricklaying or chipping castings, walking up an 8-degree grade about 2 mph; climbing stairs with a heavy load (about 50 lbs.).*

If "yes," how long does this period last during the average shift?:

\_\_\_\_\_ Hrs. \_\_\_\_\_ Mins.

13. Will you be wearing protective clothing and/or equipment (other than the respirator) when you're using your respirator?: \_\_\_\_ YES / NO

If "yes," describe this protective clothing and/or equipment:

\_\_\_\_\_

14. Will you be working under hot conditions (temperature exceeding 77 deg. F)?: \_\_\_\_\_ YES / NO

15. Will you be working under humid conditions?: \_\_\_\_\_ YES / NO

16. Describe the work you'll be doing while you're using your respirator(s):

\_\_\_\_\_  
\_\_\_\_\_

17. Describe any special or hazardous conditions you might encounter when you're using your respirator(s) (e.g., confined spaces, life-threatening gases):

\_\_\_\_\_  
\_\_\_\_\_

18. Provide the following information, if you know it, for each toxic substance that you'll be exposed to when you're using your respirator(s):

Name of the first toxic substance: \_\_\_\_\_

Estimated maximum exposure level per shift: \_\_\_\_\_

Duration of exposure per shift: \_\_\_\_\_

Name of the second toxic substance: \_\_\_\_\_

Estimated maximum exposure level per shift: \_\_\_\_\_

Duration of exposure per shift: \_\_\_\_\_

Name of the third toxic substance: \_\_\_\_\_

Estimated maximum exposure level per shift: \_\_\_\_\_

Duration of exposure per shift: \_\_\_\_\_

The name of any other toxic substances that you'll be exposed to while using your respirator:

\_\_\_\_\_  
\_\_\_\_\_

19. Describe any special responsibilities you'll have while using your respirator(s) that may affect the safety and well-being of others (e.g., rescue, security):

\_\_\_\_\_  
\_\_\_\_\_

**TABLE 1**

	OSHA RESP STAN	NFPA 1582 EVAL	NFPA 1582 EXAM	DMV 051	DMV 046	PFD (1)	IAFF IAFC	DFD 1997	DFD PRE EMPL	DFD 1999
Pre-physical Questionnaire	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Vital Signs		Y	Y	Y		Y	Y	Y	Y	Y
Physical Exam			Y	Y		Y	Y	Y	Y	Y
Medical Evaluation	Y	Y	Y	Y		Y	Y	Y	Y	Y
Vision			Y	Y		Y	Y	Y	Y	Y
Audiology			Y	Y		Y	Y	Y	Y	Y
Spirometry				Y		Y	Y	Y	Y	Y
VO2 MAX								Y	Y	(3)
Body Fat (%)						Y	Y	Y	Y	Y
Treadmill EKG Stress Test				(2)		Y	Y	Y	Y	Y
Strength/Flex						Y				(3)
Stroke Screen								Y	Y	Over 50
Chest X-Ray						Y				q 5 yr
Back X-Ray									Y	
Knee X-Ray									Y	
PSA (Cancer)						Over 50				Over 45
Digital Exam						Over 50	Y	Over 40		Over 45
Lab Test: CBC						Y	Y	Y	Y	Y
Coronary Risk						Y	Y	Y	Y	Y
Occult Blood						Y	Y	Y	Y	Y
SMAC 20						Y	Y	Y	Y	Y
Urinalysis				Y		Y	Y	Y	Y	Y
Drug Screen									Y	
Blood Type									Y	
Romberg				Y						
T-4								Y		(4)
Frequency	A	A	*	**		***	A	****	TBA	A

Medical Evaluations: Review of information by a physician (4) Information covered in other tests  
 DMV 051: Actual Medical Evaluation (3) Dimensions checked with physical  
 ability test  
 DMV 046: Firefighter Health Questionnaire (1) Phoenix Fire Department  
 Romberg: Neuromuscular Coordination Test (2) Some exercise involved  
 q: every

**FREQUENCIES**

A= Annual  
 \* = 20-29 q 3 years  
 30-39 q 2 years  
 40-↑q year

\*\*= q 2 years  
 \*\*\*= q 15months

\*\*\*\*= 20-44 q 3 years  
 45-50 q 2 years  
 51-54 q year-option for q 2 years  
 55-above q year

# PATIENT INFORMATION SURVEY

(PLEASE PRINT)

## I. GENERAL INFORMATION

Name \_\_\_\_\_ Birthdate \_\_\_\_\_ Age \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_

State \_\_\_\_\_ Zip Code \_\_\_\_\_ Home Phone (     ) \_\_\_\_\_

S.S. No. \_\_\_\_\_ ☐ Married ☐ Single Spouse's Name \_\_\_\_\_

Employer \_\_\_\_\_ Position \_\_\_\_\_

Employers Address \_\_\_\_\_ City \_\_\_\_\_

State \_\_\_\_\_ Zip Code \_\_\_\_\_ Bus. Phone (     ) \_\_\_\_\_ Yrs. \_\_\_\_\_

In the event you need follow-up care, *upon request* we would be happy to send a copy of your report to your private physician. Please write the name and address of your physician in the space provided below. If you do not have a private physician, please leave it blank.

1. \_\_\_\_\_  
name address phone

2. \_\_\_\_\_  
name address phone

I hereby consent to have all or part of the findings of my Lifestyle+Plus examination sent to the above named doctor or a physician of my choice. This consent is valid for 6 (six) months from the date of my fitness examination.

\_\_\_\_\_  
Please sign here Date

Education: Check highest level attended

☐ High school ☐ 2 year college ☐ 4 year college ☐ Post Graduate

☐ Other \_\_\_\_\_ Did you earn a degree? ☐ Yes ☐ No

Racial/Ethnic Background:

☐ Latino/Spanish American ☐ Black/Afro American

☐ Oriental/Asian American ☐ White/Caucasian

☐ Native American Indian ☐ Other

## II. MEDICAL HISTORY

Name \_\_\_\_\_ Date \_\_\_\_\_

When was your last complete physical examination? \_\_\_\_\_

By whom \_\_\_\_\_  
physician's name address phone

If you can recall, please record the results of your last physical exam, what the doctor told you regarding diagnosis and advice given.

Results: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Diagnoses: 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_  
4. \_\_\_\_\_ 5. \_\_\_\_\_ 6. \_\_\_\_\_

Other \_\_\_\_\_

Advice Given \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If you have any current medical complaints or problems, please list them briefly in the space provided below:

1. \_\_\_\_\_  
2. \_\_\_\_\_  
3. \_\_\_\_\_  
4. \_\_\_\_\_

Regarding your present general health status, check the appropriate one:

☐ Poor ☐ Fair ☐ Good ☐ Excellent

Please list any medications you take.

MEDICATION	DOSAGE	HOW OFTEN?
_____	_____	_____
_____	_____	_____
_____	_____	_____

Check all immunizations you have had and approximate last date:

- |   |   |
|---|---|
| <input type="checkbox"/> Polio-Sabin (oral) _____ | <input type="checkbox"/> German Measles _____ |
| <input type="checkbox"/> Polio-Salk (shots) _____ | <input type="checkbox"/> Diphtheria _____     |
| <input type="checkbox"/> Whooping Cough _____     | <input type="checkbox"/> Typhoid _____        |
| <input type="checkbox"/> Regular Measles _____    | <input type="checkbox"/> Yellow Fever _____   |
| <input type="checkbox"/> Tetanus _____            | <input type="checkbox"/> Cholera _____        |
|   | <input type="checkbox"/> Other _____          |

Check all Medical Diseases you have had and list approximate date or age.

- |   |   |
|---|---|
| <input type="checkbox"/> Mumps _____          | <input type="checkbox"/> Rheumatic Fever _____              |
| <input type="checkbox"/> Chicken Pox _____    | <input type="checkbox"/> Scarlet Fever _____                |
| <input type="checkbox"/> Reg. Measles _____   | <input type="checkbox"/> Prostate or Kidney Infection _____ |
| <input type="checkbox"/> German Measles _____ | <input type="checkbox"/> Other _____                        |
| <input type="checkbox"/> Whooping Cough _____ | <input type="checkbox"/> Other _____                        |
| <input type="checkbox"/> Pneumonia _____      |   |

Allergies: Please list or explain below.

- ☐ To Medications    ☐ Hay Fever    ☐ Asthma    ☐ Other \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Surgeries: List in chronological order and approximate dates. If none, so indicate.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Accidents: (Falls, auto, etc.) List in chronological order and approximate dates. If none, so indicate.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Any residual problems from previous illnesses, surgeries, or accidents?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Admissions to Hospitals:

[illegible]

### III. HABITS

**Alcohol:** If you imbibe, estimate the kind, amount, and for how long.

## Wine

per\_day

per week

**per month**

**how long**

## Alcohol

**per day**

**per week**

**per month**

## how long

## Beer

**per day**

per week

**per month**

**how long**

Over the past 5 years has your intake: ☐ increased ☐ decreased ☐ remained the same

Have you ever been advised to stop drinking? ☐ Yes ☐ No

If so, approximately when? \_\_\_\_\_

If so, did you follow this advice, and when? ☐ Yes When \_\_\_\_\_ ☐ No

**Tobacco: Have you ever smoked, chewed tobacco or used snuff regularly?**      ☐ Yes      ☐ No

If so, at approximately what age did you start? \_\_\_\_\_

If you did smoke, but stopped, at what age did you stop? \_\_\_\_\_

**If you are still smoking, how much?**

Cigars per day \_\_\_\_\_

**Snuff amount per day** \_\_\_\_\_

Pipe bowls per day \_\_\_\_\_

Marijuana amount per day \_\_\_\_\_

Cigarette packs per day \_\_\_\_\_

Estimate the total years you have smoked? \_\_\_\_\_

Are you exposed to significant amounts of smoke: ☐ at work ☐ at home ☐ other places

Do any other members of your family at home smoke? ☐ Yes ☐ No

If so, which ones and how much?

☐ spouse \_\_\_\_\_

☐ children \_\_\_\_\_

☐ others \_\_\_\_\_

Why do you continue to smoke?

☐ Nervous

☐ Weight problem

☐ It's the thing to do

☐ Other \_\_\_\_\_

Do you think smoking is bad for your health? ☐ Yes ☐ No

#### IV. EXERCISE

Did you participate in sports in high school or college? ☐ Yes ☐ No

If so, describe the sports activities: \_\_\_\_\_

On a scale of 1 to 7 (7 being the most strenuous), rate your exercise level for each age range.

15-20 \_\_\_\_\_ 20-25 \_\_\_\_\_ 25-30 \_\_\_\_\_ 30-35 \_\_\_\_\_

35-40 \_\_\_\_\_ 40-45 \_\_\_\_\_ 45-50 \_\_\_\_\_ 50 + \_\_\_\_\_

On a scale of 1 to 7 (7 being the highest), underline the number that comes closest to your present ability or capacity at the present time:

Your athletic ability	1	2	3	4	5	6	7
Your cardiovascular capacity (lack of fatigue, shortness of breath, etc. from jogging, swimming, etc.)	1	2	3	4	5	6	7
Your muscular capacity - weight lifting, etc.	1	2	3	4	5	6	7
Your mobility or flexibility of joints	1	2	3	4	5	6	7
Do you like group exercise?	1	2	3	4	5	6	7
Do you like to exercise alone?	1	2	3	4	5	6	7

Are you now participating in or performing regular endurance type of exercise? ☐ Yes ☐ No

If so, what type of exercise(s)? \_\_\_\_\_

If so, how many times per week? \_\_\_\_\_ For how long? \_\_\_\_\_

If you check your heart rate during maximum exercise, what does it average per minute? \_\_\_\_\_

If you have been exercising regularly, for how long? \_\_\_\_\_ months

Have you started exercise programs, but did not continue? ☐ Yes ☐ No

If so, why did you stop? \_\_\_\_\_

How much time per day can you devote to an exercise program? \_\_\_\_\_

Are you willing to do so? ☐ Yes ☐ No If not, why? \_\_\_\_\_

Whether or not you have been engaged in a regular exercise program, describe any other physical activities in which you have been engaged: \_\_\_\_\_

Assuming the proper facilities are available, which 4 of the following would you prefer to participate in? (Rank 1 to 4, with 1 being first choice and 4 your last choice). Mark only 4 of them.

_____ Skiing	_____ Tennis	_____ Weight Training
_____ Water Skiing	_____ Volleyball	_____ Stationary Running
_____ Surfing	_____ Badminton	_____ Stationary Cycling
_____ Swimming	_____ Golf	_____ Trampoline
_____ Jogging	_____ Handball	_____ Raquetball
_____ Running	_____ Basketball	_____ Sailing
_____ Skipping Rope	_____ Canoeing	_____ Dancing
_____ Cycling	_____ Calisthenics	_____ Hiking
_____ Other Activities (Specify) _____		

Does your job primarily require:

- |   |  |
|---|--|
| <input type="checkbox"/> Sedentary work (e.g., executive, clerical) | <input type="checkbox"/> Sudden "explosive" type of physical exertion? |
| <input type="checkbox"/> Light labor?                               | <input type="checkbox"/> Lifting heavy objects?                        |
| <input type="checkbox"/> Moderate exertion?                         |  |

Hours per day on job? \_\_\_\_\_ Hours per week? \_\_\_\_\_

Would a daily exercise program interfere with your job? ☐ Yes ☐ No

Would a daily exercise program help your job? ☐ Yes ☐ No

Do you have any hobbies? If so, list them: \_\_\_\_\_

## V. DIET

1. After age 20, what was your lowest weight, and when? \_\_\_\_\_
2. What was your highest weight, and when? \_\_\_\_\_
3. Do you have trouble maintaining a fairly stable, normal weight? ☐ Yes ☐ No
4. Are you on a diet now? ☐ Yes ☐ No
5. Have you been advised to follow a diet? ☐ Yes ☐ No
6. If so, what type of diet? \_\_\_\_\_
7. If you have been advised to follow a diet, how long did you follow it? \_\_\_\_\_ If you didn't start the diet, or stopped, why? \_\_\_\_\_
8. How many meals a day do you eat? \_\_\_\_\_
9. Do you eat between meals? ☐ Yes ☐ No If yes, when? \_\_\_\_\_
10. How many meals are eaten outside the home per week? \_\_\_\_\_
11. What type of restaurant do you frequent? \_\_\_\_\_
12. Is your appetite generally: ☐ good ☐ fair ☐ poor
13. Do you have any food allergies? \_\_\_\_\_ If yes, to which foods? \_\_\_\_\_

14. Please write down everything you have eaten in the last 24 hours, including meals, snacks, and beverages. Please record the amount of each as accurately as possible.

[illegible]

15. List any vitamin-mineral supplements you take: \_\_\_\_\_
16. If you snack, how often per day? \_\_\_\_\_
17. If you snack, what does it consist of? \_\_\_\_\_
18. How many eggs in all foods do you average per week? \_\_\_\_\_
19. Please check the meats in your diet.
- ☐ Chicken    ☐ Turkey    ☐ Fish    ☐ Organ Meats    ☐ Hot Dogs    ☐ Bologna
- ☐ Steaks    ☐ Roasts    ☐ Chops    ☐ Bacon    ☐ Ham    ☐ Hamburger
20. If you drink milk, how many glasses a day? \_\_\_\_\_ ☐ Skim    ☐ Low Fat    ☐ Whole Milk
21. Do you use:    ☐ margarine    ☐ butter    ☐ both
22. How many cups of coffee a day? \_\_\_\_\_ ☐ Regular    ☐ De-Caf
23. How many cups of tea per day, whether iced or hot? \_\_\_\_\_

## VI. TENSION AND STRESS

Answer the following questions with an X in the appropriate column:

- |  |                              |                             |
|--|------------------------------|-----------------------------|
| 1. Do you consider yourself tense or nervous?  | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 2. Do little things bother you?  | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 3. Do you think you waste a lot of time at work?   | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 4. Do you think you waste a lot of time away from work?  | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 5. Are you "easy going" and nothing bothers you?   | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 6. Are you able to remain calm in stressful situations?  | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 7. Do you consider yourself a "perfectionist"?   | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 8. Are you competitive or aggressive?  | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 9. Do you feel as though you are always facing deadlines?  | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 10. Does tension cause crossness and irritability?   | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 11. Does tension or nervousness interfere with work?   | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 12. Do you feel depressed any of the time?   | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 13. Are you even tempered?   | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 14. Do you become upset and angry very often?  | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 15. Is your tension or depression due to your job?   | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 16. Is your tension or depression due to home or marital problems?   | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 17. Do you sometimes feel "life isn't worth living"?   | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 18. When depressed, do you drink?  | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 19. When nervous, do you drink?  | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 20. Is your sex life: <input type="checkbox"/> very satisfying <input type="checkbox"/> satisfactory <input type="checkbox"/> unsatisfactory |                              |                             |

## VII. SLEEP

- |  |                              |                             |
|--|------------------------------|-----------------------------|
| 1. Do you have trouble getting to sleep?   | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 2. Once you get to sleep, do you sleep well?   | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 3. Is your sleep restless?   | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 4. Do you get enough rest and sleep?   | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 5. On the average, how many good sleeping hours do you obtain? _____                             |                              |                             |
| 6. Are you alert and "ready to go" on arising?   | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 7. Are you listless and fatigued on awakening?   | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 8. If answer to 7 is yes, do you require a stimulant to "get going"?                             | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| 9. If so, list the stimulants you use _____  |                              |                             |
| 10. Are you satisfied with your sleeping habits without medication or alcohol to help you sleep? | <input type="checkbox"/> YES | <input type="checkbox"/> NO |

## VIII. SYSTEM REVIEW

GENERAL: (Check if present or past problems or history of)

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Night sweats        | <input type="checkbox"/> Skin problems        | <input type="checkbox"/> Congenital abnormalities |
| <input type="checkbox"/> Leg cramps at night | <input type="checkbox"/> Alcoholism           | <input type="checkbox"/> Transfusions             |
| <input type="checkbox"/> Cancer              | <input type="checkbox"/> Drug problems        | <input type="checkbox"/> Anemia                   |
| <input type="checkbox"/> Chronic fatigue     | <input type="checkbox"/> Bleeding problems    | <input type="checkbox"/> Other _____              |
| <input type="checkbox"/> Periodic fatigue    | <input type="checkbox"/> Enlarged lymph nodes |   |

EYES, EARS, NOSE, THROAT: (Check if present or past problems or history of)

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Visual problems     | <input type="checkbox"/> Laryngitis (chronic) | <input type="checkbox"/> Cataracts                   |
| <input type="checkbox"/> Ringing in ears     | <input type="checkbox"/> Hearing problems     | <input type="checkbox"/> Sore lips, cheeks, or mouth |
| <input type="checkbox"/> Ear infections      | <input type="checkbox"/> Eye infections       | <input type="checkbox"/> Dental problems             |
| <input type="checkbox"/> Sinusitis           | <input type="checkbox"/> Blurred vision       | <input type="checkbox"/> Dentures                    |
| <input type="checkbox"/> Polyps in nose      | <input type="checkbox"/> Spots before eyes    | <input type="checkbox"/> Taste abnormal              |
| <input type="checkbox"/> Glasses or contacts | <input type="checkbox"/> "Floaters" in eyes   | <input type="checkbox"/> Smell                       |
| <input type="checkbox"/> Nose bleeds         | <input type="checkbox"/> Glaucoma             |  |
| <input type="checkbox"/> Tonsillitis         | <input type="checkbox"/> Color distinction    |  |

LUNGS: (Check if present or past problems or history of)

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Emphysema                   | <input type="checkbox"/> Asthma or wheezing                      |  |
| <input type="checkbox"/> Chronic bronchitis          | <input type="checkbox"/> Inhalation of toxic fumes               |  |
| <input type="checkbox"/> Cancer                      | <input type="checkbox"/> Coughing up blood                       |  |
| <input type="checkbox"/> Pleurisy                    | <input type="checkbox"/> Undue shortness of breath upon exertion |  |
| <input type="checkbox"/> Clots in lungs              | <input type="checkbox"/> Chest pain                              |  |
| <input type="checkbox"/> Chronic cough               |  |  |
| <input type="checkbox"/> Tuberculosis                | Date of last skin test and results _____                         |  |
| <input type="checkbox"/> Coccidioides (valley fever) | Date of last skin test and results _____                         |  |

CARDIAC: (Check if present or past problems or history of)

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> "Feeling of suffocation"  | <input type="checkbox"/> High blood pressure            | <input type="checkbox"/> Shortness of breath                        |
| <input type="checkbox"/> Low blood pressure        | <input type="checkbox"/> Told EKG "abnormal"            | <input type="checkbox"/> High cholesterol                           |
| <input type="checkbox"/> Palpitation or "skipping" | <input type="checkbox"/> Heart murmur                   | <input type="checkbox"/> High triglycerides                         |
| <input type="checkbox"/> Heart attack              | <input type="checkbox"/> Swelling of feet and/or ankles | <input type="checkbox"/> Heaviness or pressure in chest on exertion |
| <input type="checkbox"/> "Inflammation of heart"   | <input type="checkbox"/> Angina pectoris                |   |
| <input type="checkbox"/> Pericarditis              | <input type="checkbox"/> Chest pain from heart          |   |
| <input type="checkbox"/> Enlarged heart            |   |   |

Date of last treadmill test \_\_\_\_\_

GASTRO-INTESTINAL: (Check if present or past problems or history of)

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Bloating           | <input type="checkbox"/> Nausea               | <input type="checkbox"/> Abdominal pain                           |
| <input type="checkbox"/> Belching           | <input type="checkbox"/> Recurrent vomiting   | <input type="checkbox"/> Change in bowel habits                   |
| <input type="checkbox"/> Black stools       | <input type="checkbox"/> Constipation         | <input type="checkbox"/> Change in stools                         |
| <input type="checkbox"/> Jaundice           | <input type="checkbox"/> Diarrhea             | <input type="checkbox"/> Polyps                                   |
| <input type="checkbox"/> Colitis or ileitis | <input type="checkbox"/> Gall bladder trouble | <input type="checkbox"/> Abnormal upper GI X-Rays or Barium Enema |
| <input type="checkbox"/> Hemorrhoids        | <input type="checkbox"/> Cirrhosis of liver   |   |
| <input type="checkbox"/> Heartburn          | <input type="checkbox"/> Hepatitis            |   |
| <input type="checkbox"/> Ulcer              | <input type="checkbox"/> Food intolerance     |   |
| <input type="checkbox"/> Hiatal hernia      | <input type="checkbox"/> Diverticulosis       |   |
| <input type="checkbox"/> Bowel obstruction  | <input type="checkbox"/> Rectal bleeding      |   |

**GENITO-URINARY: (Check if present or past problems or history of)**

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Prostate infection     | <input type="checkbox"/> Kidney stones            | <input type="checkbox"/> Kidney X-Rays (IVP)       |
| <input type="checkbox"/> Gonorrhea              | <input type="checkbox"/> Trouble with intercourse | <input type="checkbox"/> Dribbling after urination |
| <input type="checkbox"/> Syphilis               | <input type="checkbox"/> Enlarged prostate        | <input type="checkbox"/> Poor bladder control      |
| <input type="checkbox"/> Herpes                 | <input type="checkbox"/> Hesitancy                | <input type="checkbox"/> Testicular problems       |
| <input type="checkbox"/> Blood in urine         | <input type="checkbox"/> Small or slow stream     | <input type="checkbox"/> Scrotal problems          |
| <input type="checkbox"/> Protein in urine       | <input type="checkbox"/> Urinary retention        | <input type="checkbox"/> Abnormality of penis      |
| <input type="checkbox"/> Kidney infection       | <input type="checkbox"/> Bladder catheterization  |  |
| <input type="checkbox"/> Up at night to urinate |   |  |

**GYNECOLOGICAL PROBLEMS: (Check if present or past problems or history of)**

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Taking estrogen?   | <input type="checkbox"/> Tube problems    | <b>Menses</b>   |
| <input type="checkbox"/> Taking the "pill"? | <input type="checkbox"/> Uterus problems  | <input type="checkbox"/> Normal                       |
| _____ No. of pregnancies                    | <input type="checkbox"/> Ovarian problems | <input type="checkbox"/> Irregular                    |
| _____ No. of children                       |   | <input type="checkbox"/> Spotting                     |
| _____ (Miscarriage) Abortion                | <b>Menopause</b>                          | <input type="checkbox"/> Heavy flow                   |
| _____ Last Pap smear                        | <input type="checkbox"/> Natural          | <input type="checkbox"/> Premenstrual fluid retention |
| <input type="checkbox"/> Abnormal Pap smear | <input type="checkbox"/> Surgical         |   |
| <input type="checkbox"/> Breast problems    | <input type="checkbox"/> From radiation   |   |
| <input type="checkbox"/> Vaginal problems   |   |   |

**NERVOUS SYSTEM: (Check if present or past problems or history of)**

- |   |   |
|---|---|
| <input type="checkbox"/> Faintness or fainting    | <input type="checkbox"/> Nervous breakdown        |
| <input type="checkbox"/> Numbness and/or tingling | <input type="checkbox"/> Suicidal thoughts        |
| <input type="checkbox"/> Severe headaches         | <input type="checkbox"/> Double vision            |
| <input type="checkbox"/> Concussion               | <input type="checkbox"/> Slurred speech           |
| <input type="checkbox"/> Dizziness                | <input type="checkbox"/> Weakness of an extremity |
| <input type="checkbox"/> Inability to concentrate | <input type="checkbox"/> Unsteady gait            |
| <input type="checkbox"/> Undue forgetfulness      | <input type="checkbox"/> Stroke                   |
| <input type="checkbox"/> Claustrophobia           | <input type="checkbox"/> Problems with smell      |

**ENDOCRINE: (Check if present or past problems or history of)**

- |   |   |
|---|---|
| <input type="checkbox"/> Heat intolerance           | <input type="checkbox"/> Weight loss in spite of good appetite    |
| <input type="checkbox"/> Cold intolerance           | <input type="checkbox"/> Loss of sex desire                       |
| <input type="checkbox"/> Perspire more than average | <input type="checkbox"/> Inability to obtain or maintain erection |
| <input type="checkbox"/> Unduly dry skin            |   |
| <input type="checkbox"/> Undue thirst               |   |

**MUSCULOSKELETAL: (Check if present or past problems or history of)**

- |   |                           |
|---|---------------------------|
| <input type="checkbox"/> Fractures                  | <b>Joints - Specify</b>   |
| <input type="checkbox"/> Back pain                  | _____                     |
| <input type="checkbox"/> Pain into arms             | _____                     |
| <input type="checkbox"/> Pain into legs             | _____                     |
| <input type="checkbox"/> Neck pain                  | _____                     |
| <input type="checkbox"/> Discs - neck or back       | <b>Bursitis - Specify</b> |
| <input type="checkbox"/> Knee injury                | _____                     |
| <input type="checkbox"/> Phlebitis or "blood clots" | _____                     |
| <input type="checkbox"/> Sprains (severe)           | _____                     |
| <input type="checkbox"/> Arthritis                  | _____                     |

# IX. FAMILY HISTORY:

FAMILY MEMBER'S NAME	IF LIVING			IF DECEASED		
	M	F	Age	Health	Age	Cause
Father						
Mother						
Brothers (Indicate if M or F)						
Sisters						
1.						
2.						
3.						
4.						
5.						
6.						
7.						
Daughters						
Sons						
1.						
2.						
3.						
4.						
5.						
6.						

Has any blood relative ever had?

Cancer	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Thyroid Problems	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Tuberculosis	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Insanity	<input type="checkbox"/> Yes	<input type="checkbox"/> No
High Blood Pressure	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Suicide	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Diabetes	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Asthma	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Heart Disease	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Emphysema	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Blood Vessel Disease	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Leukemia	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Stroke	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Bleeding Disorder	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Epilepsy	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Gout	<input type="checkbox"/> Yes	<input type="checkbox"/> No

# HEALTH QUESTIONNAIRE

546

DO NOT use this form for Commercial Licensing Requirements.

The applicant completes this form.

**INSTRUCTIONS:** Please check "Yes" or "No" to each question and explain any "Yes" answer(s) in the space provided on the bottom of the form, or on another piece of paper. If you are not sure how to answer a specific question, please contact your physician for assistance. "Yes" answers to all questions (except 1-3) may require DMV to contact your physician about your medical qualifications before DMV can issue you a license. **You must submit a completed health questionnaire every two years.**

## PLEASE TELL US ABOUT YOURSELF

TRUE FULL NAME		DRIVER LICENSE NUMBER
ADDRESS		
DATE OF BIRTH	SOCIAL SECURITY NUMBER	DAYTIME PHONE
Mo      Day      Year	— — — — —	(      )

## HEALTH QUESTIONS

	YES	NO
1. Do you have difficulty seeing the colors of red, green, and yellow used in traffic signal lights? .....	<input type="checkbox"/>	<input type="checkbox"/>
2. Is your side (peripheral) vision less than 70° for either eye? .....	<input type="checkbox"/>	<input type="checkbox"/>
3. Do you have difficulty hearing a loud whispered voice in your best ear at five feet with or without a hearing aid? .....	<input type="checkbox"/>	<input type="checkbox"/>
4. Do you have a vision impairment in either eye that is not correctable to 20/40? .....	<input type="checkbox"/>	<input type="checkbox"/>
5. Do you:		
a. Have a missing foot, leg, hand, or arm? .....	<input type="checkbox"/>	<input type="checkbox"/>
b. Have an impairment or limitation of the use of a foot, leg, hand, fingers or an arm, or any other physical impairment or limitations? .....	<input type="checkbox"/>	<input type="checkbox"/>
c. Use an adaptive device in your vehicle? .....	<input type="checkbox"/>	<input type="checkbox"/>
6. Do you have diabetes requiring Insulin for control or have you had a hypoglycemic episode or other adverse reaction in the last three (3) years? .....	<input type="checkbox"/>	<input type="checkbox"/>
7. Have you had a heart attack, angina, coronary insufficiency, thrombosis, stroke, other heart problem, or cardiovascular disease? .....	<input type="checkbox"/>	<input type="checkbox"/>
If "yes," have you had labored breathing, fainting, collapse, congestive heart failure, or other symptoms in the last three (3) years? .....	<input type="checkbox"/>	<input type="checkbox"/>
8. Do you have a respiratory condition, such as emphysema, chronic asthma, or tuberculosis? .....	<input type="checkbox"/>	<input type="checkbox"/>
If "yes," is your respiratory condition likely to interfere with your ability to drive a motor vehicle safely? .....	<input type="checkbox"/>	<input type="checkbox"/>
9. Do you have high blood pressure .....	<input type="checkbox"/>	<input type="checkbox"/>
If "yes," is your blood pressure usually higher than 160/90? .....	<input type="checkbox"/>	<input type="checkbox"/>
10. Do you now have or have you ever had a rheumatic, arthritic, orthopedic, muscular, neuromuscular, or vascular disease? .....	<input type="checkbox"/>	<input type="checkbox"/>
If "yes," is your condition likely to interfere with your ability to drive a motor vehicle safely? .....	<input type="checkbox"/>	<input type="checkbox"/>
11. Do you have any mental illness, nervous condition, or emotional problem? .....	<input type="checkbox"/>	<input type="checkbox"/>
If "yes," is your condition likely to interfere with your ability to drive a motor vehicle safely? .....	<input type="checkbox"/>	<input type="checkbox"/>
12. Do you have epilepsy or other condition which may cause loss of consciousness or control? .....	<input type="checkbox"/>	<input type="checkbox"/>
If "yes," have you had a loss of consciousness or loss of control in the last three (3) years? .....	<input type="checkbox"/>	<input type="checkbox"/>
13. Do you use an amphetamine, a narcotic, or any other habit-forming drug? .....	<input type="checkbox"/>	<input type="checkbox"/>
If "yes":   a. Did your physician prescribe this drug? .....	<input type="checkbox"/>	<input type="checkbox"/>
b. Did your physician advise you <b>NOT</b> to drive when taking the drug? .....	<input type="checkbox"/>	<input type="checkbox"/>
14. Are you currently diagnosed as an alcoholic? .....	<input type="checkbox"/>	<input type="checkbox"/>
If "yes," when did you have your last drink of an alcoholic beverage? .....		

EXPLAIN ANY "YES" ANSWERS HERE.

PHYSICIAN'S NAME (PLEASE PRINT)	DATE OF LAST VISIT
	Mo      Year
PHYSICIAN'S OFFICE ADDRESS	PHYSICIAN'S PHONE NUMBER
	(      )

**I certify under penalty of perjury under the laws of the State of California that the information I have provided is true and correct and I hereby give consent to the release of medical information by the above named physician.**

DRIVER'S SIGNATURE	DATE
<b>X</b>	
EXAMINER'S SIGNATURE	ID NUMBER
<b>X</b>	
OFFICE	DATE



A Public Service Agency

# MEDICAL EXAMINATION REPORT

051

## DRIVER COMPLETES THIS SECTION

NAME (FIRST, MIDDLE, LAST)

ADDRESS

CITY

STATE

ZIP CODE

SOCIAL SECURITY NO.

☐ Original Certification ☐ Renewal

DRIVER LICENSE NO.

CLASS

BIRTH DATE (MO., DAY, YR.)

HEIGHT

WEIGHT

EYES

SEX

HAIR

WORK TELEPHONE NO.

( )

HOME TELEPHONE NO.

( )

## HEALTH HISTORY (Please explain any "YES" answers)

YES	NO
	Head, neck, or spinal injury
	Seizure, convulsions, or fainting
	Dizziness or frequent headaches
	Eye problem (except corrective lenses)
	Cardiovascular (heart or blood vessel) disease
	Lung disease (include TB and asthma)
	Nervous stomach or ulcer
	Diabetes
	Kidney disease (including stones or blood in urine)
	Muscular disease
	Extensive confinement by illness or injury
	Permanent defect
	Psychiatric disorder
	Any other nervous disorder
	Problems with the use of alcohol or drugs
	Syphilis or gonorrhea
	Rheumatic fever
	Suffering from any other disease
	Any major illness last 5 years
	Any operations last 5 years
	Currently taking medicine

EXPLANATION: (Include onset date, diagnosis, medication, physician's name and address and any current condition or limitation. Attach additional sheet, if needed).

I certify under penalty of perjury under the laws of the State of California that I have provided true and complete information concerning my health.

Date \_\_\_\_\_ Driver's Signature: **X**

## PHYSICIAN, CHIROPRACTOR, PHYSICIAN'S ASSISTANT, OR ADVANCED PRACTICE NURSE COMPLETES THIS SECTION

DRIVER'S IDENTITY VERIFIED BY:

☐ Driver License No.: \_\_\_\_\_ ☐ Other Photo ID (Specify ID used): \_\_\_\_\_

I certify under penalty of perjury under the laws of the State of California that I have examined the driver named above in accordance with the Motor Carrier Safety Regulations (49 CFR 391.41—391.49) and with knowledge of the driving duties, I find this person is:

- ☐ qualified UNTIL \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
(Must insert date. Usually, it is two years from exam date.)
- ☐ qualified only when wearing: ☐ Corrective lenses ☐ Hearing aid
- ☐ medically unqualified unless accompanied by a \_\_\_\_\_ waiver.
- ☐ qualified by operation of 49 CFR §391.64.
- ☐ medically unqualified unless driving within an exempt intracity zone.
- ☐ NOT QUALIFIED.

A completed examination form is on file in my office.

SIGNATURE OF EXAMINING PHYSICIAN, CHIROPRACTOR, PHYSICIAN'S ASSISTANT, OR ADVANCED PRACTICE NURSE

NAME (PRINT)

DATE OF EXAM

LICENSE OR CERTIFICATE NO. /ISSUING STATE

TELEPHONE NO.

TITLE

☐ Physician (☐ M.D. ☐ D.O.)

☐ Chiropractor

☐ Physician's Assistant

☐ Advanced Practice Nurse

ADDRESS

CITY

STATE

ZIP CODE

## DMV COMPLETES THIS SECTION

REVIEWED BY

DATE

FIELD OFFICE

APP. DATE

HEADQUARTER'S REVIEW

1. PLACE DOCTOR'S OFFICE STAMP IN THIS SPACE.

# **PHYSICIAN, CHIROPRACTOR, PHYSICIAN'S ASSISTANT, OR ADVANCED PRACTICE NURSE COMPLETES THIS SECTION**

Check each item in appropriate box to show "Qualified" or "Not Qualified." Colored boxes must be completed. See instructions for condition or defects that must be noted. Explain any special findings or test results **NOT** in an acceptable tolerance range. Use additional sheets, if needed.

Driver License Number _____ Name _____ Date of Exam _____		EXPLANATION (IF NECESSARY)
QUALIFIED	NOT QUALIFIED	
		2. <b>General Appearance and Development.</b> Note marked overweight and any defects that could be caused by alcoholism, thyroid intoxication, or other illnesses.
		3. <b>Visual Acuity:</b> Must be at least 20/40 in each eye with/without corrective lenses. <div style="display: flex; justify-content: space-between;"> <div> <b>UNCORRECTED</b>            Both 20/____            Left 20/____            Right 20/____         </div> <div> <b>CORRECTED</b>            20/____            20/____            20/____         </div> <div> <b>CONTACTS?</b>  <input type="checkbox"/> Yes <input type="checkbox"/> No            Are the lenses well-adapted and tolerated? <input type="checkbox"/> Yes <input type="checkbox"/> No         </div> </div>
		4. <b>Peripheral Vision:</b> Left _____ Right _____ Express in degrees. (Must be at least than 70.)
		5. <b>Color Vision:</b> Can distinguish red, amber, green as used in traffic signals.
		6. <b>Pupillary Reflex.</b> Light Check both eyes.
		7. <b>Accommodation:</b> Check both eyes.
		8. <b>Eyes.</b> Note any evidence of disease or injury.
		9. <b>Hearing:</b> can perceive forced whispered voice in the better ear at not less than five feet with or without hearing aid. Forced whisper heard in right ear _____ ft., left ear _____ ft. If audiometer used, hearing loss in decibels: Right ear: _____ at 500 Hz _____ 1,000 Hz _____ 2,000 Hz Left ear: _____ at 500 Hz _____ 1,000 Hz _____ 2,000 Hz
		10. <b>Ears.</b> Note any evidence of disease or injury.
		11. <b>Romberg.</b> <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal
		12. <b>Lungs/chest</b>
		13. <b>X-ray Results:</b> If indicated. Check qualified if x-rays not necessary.
		14. <b>Heart.</b> Stethoscope exam required. Note murmurs, arrhythmias, and any evidence of cardiovascular disease. Electrocardiogram results, if indicated: If organic disease is present, is it fully compensated? <input type="checkbox"/> Yes <input type="checkbox"/> No
		15. <b>Blood Pressure:</b> If consistently above 160/90 mm. Hg., further tests may be necessary to determine if driver is qualified. (See instructions.) Systolic _____ Diastolic _____
		16. <b>Pulse:</b> Before exercise _____ Immediately after 2 min. exercise _____
		17. <b>Abdomen.</b> Note any defects or injuries that could interfere with normal function. Note scars, abnormal masses, tenderness. Hernia <input type="checkbox"/> Yes <input type="checkbox"/> No If so, where? _____ Is truss worn? <input type="checkbox"/> Yes <input type="checkbox"/> No
		18. <b>Gastrointestinal.</b> Ulceration or other disease. <input type="checkbox"/> Yes <input type="checkbox"/> No
		19. <b>Genitourinary.</b> Note scars, urethral discharge. Urinalysis is required. Urine: Spec. Gr _____ Alb _____ Sugar _____
		20. <b>Upper and lower extremities.</b> Record the loss or impairment of leg, foot, toe, arm, hand, or fingers.
		21. <b>Spine:</b> Note any disease or injury.
		22. <b>Knee jerk reflex:</b> Right: _____ Normal _____ Increased _____ Absent Left: _____ Normal _____ Increased _____ Absent
		23. <b>Results of any other laboratory tests.</b> Note any evidence of disease or injury indicated. (Attach extra sheets, if needed.)
		24. <b>Mental condition.</b> Note any condition requiring medication or therapy.

## 25. **CONTROLLED SUBSTANCES TESTING:**

- ☐ Controlled substances test performed:  
☐ In accordance with subpart H. ☐ Not in accordance with subpart H.  
☐ Controlled substances test NOT performed. (This box may be checked if you collect urine sample only and will not have access to test results.)